ORDER NO. DSC0311013C0

B26

Service Manual

Digital Camera

LUMIX

LEICA DC VARIO-ELMARIT

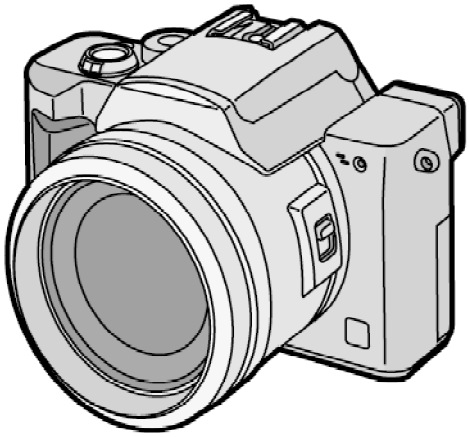
DMC-FZ10PP / DMC-FZ10PL / DMC-FZ10EB / DMC-FZ10EG / DMC-FZ10GC / DMC-FZ10GD / DMC-FZ10GN / DMC-FZ10SG

Vol. 1

Colour

(S).....Silver Type

(K).....Black Type



SPECIFICATIONS

ITEM	SPECIFICATION	ITEM	SPECIFICATION
Camera Effective pixels	4,000,000 Pixels	Recording media	SD Memory Card/MultiMediaCard
Image sensor	1/2.5" CCD, total pixel number 4,230,000 pixcels Primary color filter	Recording size	2304×1728, 1600×1200, 1280×960, 640×480, 1920×1080 (Still picture) 320×240 (Motion image)
Lens	Optical 12× zoom, f=6.0-72.0 mm (35mm film camera equivalent: 35-420 mm)/F2.8	Quality	Fine/Standard
Digital zoom	Single: 3×, Burst: 3×	Recording file format	Still Picture: JPEG (Design rule for Camera File system, based on Exif 2.2 standard), DPOF corresponding Still picture with audio: JPEG (Design rule for Camera File system, based on Exif 2.2 standard) 640×480 pixcels QuickTime (picture with audio) Motion image: QuickTime Motion JPEG (motion images with audio)
Focus	TTL Auto/Macro/Manual,/Spot AF (Spot mode)		
Focus range	0.98 feet (30 cm) (Wide)/6.56 feet (2 m) (Tele)-∞ Macro/Aperture-priority AE/Shutter-priority AE/ Manual exposure: 0.16 feet (5 cm) (Wide)/ 6.56 feet (2 m) (Tele)-∞		
Shutter system	Electronic shutter+Mechanical shutter		
Burst recording	4 frames/second (high speed), 2 frames/second (low speed), max 7frames (standard)/5 frames (fine)		
Motion image recording	320×240 (30 or 10 frames/second with audio)		
ISO sensitivity	AUTO/50/100/200/400	Interface	Digital: USB Analog video/audio: NTSC/PAL Composite/Audio line output (monaural)
Shutter speed	8 - 1/2,000th Motion image mode: 1/30th - 1/2,000th		
White balance	AUTO/Daylight/Cloudy/Halogen/Flash/White set	Terminal	USB: 5 pin Mini USB Analog video/audio: Φ2.5 mm jack DC IN: EIAJ type 3 jack
Exposure (AE)	Program AE (P)/Aperture-priority AE (A)/ Shutter-priority AE (S)/Manual exposure (M) Exposure compensation (1/3 EV step, -2 - +2 EV)	Power source	DC 8.4V
Metering mode	Multi/Spot (Spot mode)	Power Consumption	2.6W (When recording with LCD Monitor) 2.4W (When recording with Viewfinder) 1.7W (When playing back with LCD Monitor) 1.5W (When playing back with Viewfinder)
LCD monitor	2.0 low-temperature polycrystalline TFT LCD (130,000 Pixels)		
Viewfinder	Color electrical Viewfinder (130,000 Pixels) (with dioptor adjustment -4 +4 dioptor)	Dimensions (W×H×D)	5 7/16"×3 7/16"×4 5/32"/138.5×87.2×105.7 mm (excluding the projection part)
Flash	Built-in pop up flash Flash range: (ISO 100) approx. 1.31 feet (40 cm) - 13.1 feet (4 m) (Wide)/ approx. 6.56 feet (2 m) - 13.1 feet (4 m) (Tele) AUTO, AUTO/Red-eye reduction, Forced ON, Slow sync./Red-eye reduction, Forced OFF	Weight	Approx. 18.3 oz./518 g (excluding Memory Card and battery) Approx. 19.4 oz./550 g (with Memory Card and battery)
		Operating Temperature	32F–104F (0°C–40°C)
Microphone	Monaural	Operating Humidity	10%–80%
Speaker	Monaural	Solder	This model use lead free solder (PbF).

Weight and dimensions shown are approximate.
Specifications are subject to change without notice.

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⚠ WARNING

This service information is designed for experienced repair technicians only and is not designed for use by the general public.
It does not contain warnings or cautions to advise non-technical individuals of potential dangers in attempting to service a product.
Products powered by electricity should be serviced or repaired only by experienced professional technicians. Any attempt to service or repair the product or products dealt with in this service information by anyone else could result in serious injury or death.

Panasonic

1. INTRODUCTION

1.1. INTRODUCTION

This service manual contains technical information, which allow service personnel's to understand and service this model.
Please place orders using the parts list and not the drawing reference numbers.
If the circuit is changed or modified, the information will be followed by service manual to be controlled with original service manual.

1.2. ABOUT LEAD FREE SOLDER (PbF)

Distinction of PbF PCB:
PCBs (manufactured) using lead free solder will have a PbF stamp on the PCB.

Caution:

- Pb free solder has a higher melting point than standard solder, Typically the melting point is 50-70°F (30-40°C) higher. Please use a high temperature soldering iron. In case of soldering

iron with temperature control, please set it to 700±20°F (370±10°C)

- Pb free solder will tend to splash when heated too high (about 1100°F/600°C).

When soldering or unsoldering, please completely remove all of the solder on the pins or solder area, and be sure to heat the soldering points with the Pb free solder until it melts enough.

1.3. IMPORTANT NOTICE 1: (Other than U.S.A. and Canadian Market)

1. The service manual does not contain the following information, because of the impossibility of servicing at component level.
   A. Schematic diagram, Block Diagram and C.B.A. layout of Main C.B.A.
   B. Parts list for individual parts of Main C.B.A.
   When a part replacement is required for repairing Main C.B.A., replace as an assembled parts. (Main C.B.A.)
2. The following category is/are recycle module part. please send it/ them to Central Repair Center.

   - MAIN C.B.A. (VEP56009A) : Excluding replacement of Lithium Battery

1.4. HOW TO DEFINE THE MODEL SUFFIX (NTSC or PAL model)

There are four kinds of DMC-FZ10, regardless the colours.

- a) DMC-FZ10S
- b) DMC-FZ10PP
- c) DMC-FZ10EB/EG/GC/GN/SG
- d) DMC-FZ10PL/GD

(DMC-FZ10S is exclusively Japan domestic model.)

What is the difference is that the “INITIAL SETTING” data which is stored in Flash ROM mounted on Main C.B.A.

1.4.1. Defining methods:

To define the model suffix to be serviced, refer to the nameplate which is putted on the bottom side of the Unit.

a) DMC-FZ10S
DMC-FZ10S is exclusively Japan domestic model.

b) DMC-FZ10PP
The nameplate for this model show the following Safety registration mark.

c) DMC-FZ10EB/EG/GC/GN/SG
The nameplate for these models show the following Safety registration mark.

d) DMC-FZ10PL/GD
The nameplate for these models do not show any above safety registration mark.

NOTE:

After replacing the MAIN C.B.A., be sure to achieve adjustment. The adjustment instruction is available at "software download" on the "CS-Web from AVC" web-site in "TSN system", together with Maintenance software.

1.4.2. INITIAL SETTINGS:

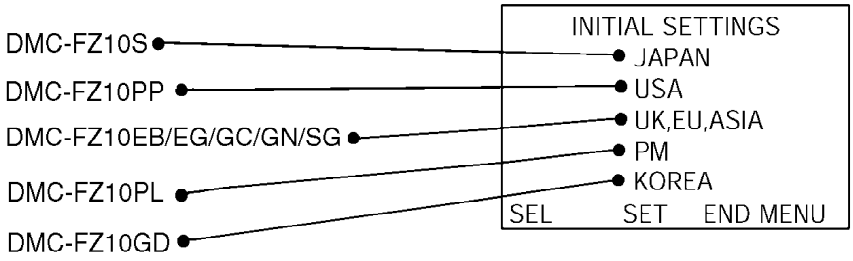
When you replace the Main C.B.A. be sure to perform the initial settings after achieving the Adjustment, by ordering the following procedure in accordance with model suffix.

- Step 1. The temporary cancellation of factory setting:
Set the mode dial to " [P] (Red mark)".
While keep pressing [Burst] and " [UP] of Cross key" simultaneously, turn the Power on.

- Step 2. The cancellation of factory setting:
Set the mode dial to " [Playback] ".
While keep pressing [Burst] and " [UP] of Cross key" simultaneously, turn the Power off.

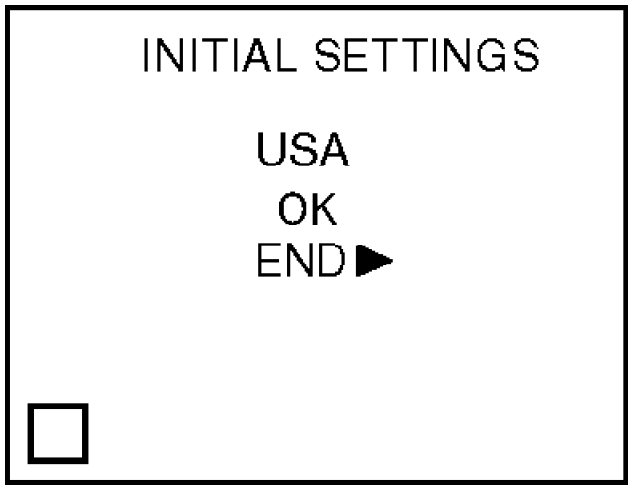
- Step 3. Turn the Power on:
Set the mode dial to " [P] (Red mark)", and then turn the Power on.

- Step 4. Display the INITIAL SETTING:
While keep pressing [MENU] and " [RIGHT] of Cross key" simultaneously, turn the Power off.



- Step 5. Set the INITIAL SETTING:

Select the area with pressing " [UP] / [DOWN] of Cross key", and then press the " [RIGHT] of Cross key".



The only set area is displayed, and then press the " [RIGHT] of Cross key" after confirmation. (The unit is powered off automatically.)

Confirm the display of "PLEASE SET THE CLOCK" in English when the unit is turned on again.

- Step 6. CONFIRMATION:

The display shows "PLEASE SET THE CLOCK" when turn the Power on again.

Connect the unit to PC with USB cable and is detected as removable media.

1) As for your reference Default setting condition is given in the following table.

- Default setting (After "INITIAL SETTINGS")

	MODEL	VIDEO OUTPUT	LANGUAGE	DATE	REMARKS
a)	DMC-FZ10S	NTSC	Japanese	Year/Month/Date	
b)	DMC-FZ10PP/PL	NTSC	English	Month/Date/Year	
c)	DMC-FZ10EB/EG/GC/ GN/SG	PAL	English	Date/Month/Year	
d)	DMC-FZ10GD	NTSC	English	Year/Month/Date	

2. SAFETY PRECAUTIONS

2.1. GENERAL GUIDELINES

1. **IMPORTANT SAFETY NOTICE**
   There are special components used in this equipment which are important for safety. These parts are marked by ⚠ in the Schematic Diagrams, Circuit Board Layout, Exploded Views and Replacement Parts List. It is essential thatthese critical parts should be replaced with manufacturer's specified parts to prevent X-RADIATION, shock, fire, or other hazards. Do not modify the original design without permission of manufacturer.
2. **An Isolation Transformer should always be used during the servicing of AC Adaptor whose chassis is not isolated from the AC power line. Use a transformer of adequate power rating as this protects the technician from accidents resulting in personalinjury from electrical shocks. It will also protect AC Adaptor from being damaged by accidental shorting that may occur during servicing.**
3. **When servicing, observe the original lead dress. If a short circuit is found, replace all parts which have been overheated or damaged by the short circuit.**
4. **After servicing, see to it that all the protective devices such as insulation barriers, insulation papers shields are properly installed.**
5. **After servicing, make the following leakage current checks to prevent the customer from being exposed to shock hazards.**

2.2. LEAKAGE CURRENT COLD CHECK

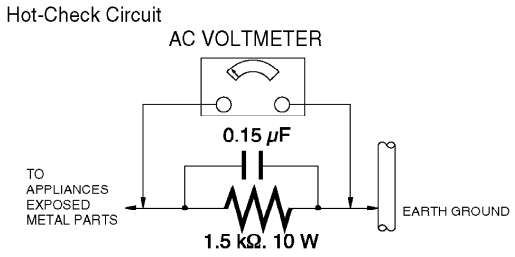
1. **Unplug the AC cord and connect a jumper between the two prongs on the plug.**
2. **Measure the resistance value, with an ohmmeter, between the jumpered AC plug and each exposed metallic cabinet part on the equipment such as screwheads, connectors, control shafts, etc. When the exposed metallic part has a return path to thechassis, the reading should be between 1 MΩ and 5.2 MΩ. When the exposed metal does not have a return path to the chassis, the**

reading must be infinity.

2.3. LEAKAGE CURRENT HOT CHECK (See Figure 1.)

1. **Plug the AC cord directly into the AC outlet. Do not use an isolation transformer for this check.**
2. **Connect a 1.5 k Ω , 10 W resistor, in parallel with a 0.15 μ F capacitor, between each exposed metallic part on the set and a good earth ground, as shown in Figure 1.**
3. **Use an AC voltmeter, with 1 k Ω /V or more sensitivity, to measure the potential across the resistor.**
4. **Check each exposed metallic part, and measure the voltage at each point.**
5. **Reverse the AC plug in the AC outlet and repeat each of the above measurements.**
6. **The potential at any point should not exceed 0.75 V RMS. A leakage current tester (Simpson Model 229 or equivalent) may be used to make the hot checks, leakage current must not exceed 1/2 mA. In case a measurement is outside of thelimits specified, there is a possibility of a shock hazard, and the equipment should be repaired and rechecked before it is returned to the customer.**

Figure. 1



3. PREVENTION OF ELECTRO STATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES

Some semiconductor (solid state) devices can be damaged easily by static electricity. Such components commonly are called Electrostatically Sensitive (ES) Devices. Examples of typical ES devices are integrated circuits and some field-effect transistorsand semiconductor "chip" components. The following techniques should be used to help reduce the incidence of component damage caused by electro static discharge (ESD).

1. **Immediately before handling any semiconductor component or**

semiconductor-equipped assembly, drain off any ESD on your body by touching a known earth ground. Alternatively, obtain and wear a commercially available discharging ESD wrist strap, whichshould be removed for potential shock reasons prior to applying power to the unit under test.

2. **After removing an electrical assembly equipped with ES devices, place the assembly on a conductive surface such as aluminum foil, to prevent electrostatic charge buildup or exposure of the assembly.**
3. **Use only a grounded-tip soldering iron to solder or unsolder ES devices.**
4. **Use only an antistatic solder removal device. Some solder removal devices not classified as "antistatic (ESD protected)" can generate electrical charge sufficient to damage ES devices.**
5. **Do not use freon-propelled chemicals. These can generate electrical charges sufficient to damage ES devices.**
6. **Do not remove a replacement ES device from its protective package until immediately before you are ready to install it. (Most replacement ES devices are packaged with leads electrically shorted together by conductive foam, aluminum foil or comparableconductive material).**
7. **Immediately before removing the protective material from the leads of a replacement ES device, touch the protective material to the chassis or circuit assembly into which the device will be installed.**

   CAUTION :

   Be sure no power is applied to the chassis or circuit, and observe all other safety precautions.
8. **Minimize bodily motions when handling unpackaged replacement ES devices. (Otherwise harmless motion such as the brushing together of your clothes fabric or the lifting of your foot from a carpeted floor can generate static electricity (ESD)sufficient to damage an ES device).**

4. HOW TO RECYCLE THE LITHIUM ION BATTERY /

(U.S. ONLY)

ENGLISH
A lithium ion battery that is recyclable powers the product you have purchased. Please call 1-800-8-BATTERY for information on how to recycle this battey.

FRANÇAIS
L'appareil que vous vous êtes procuré est alimenté par une batterie au lithium-ion. Pour des renseignements sur le recyclage de la batterie, veuillez composer le 1-800-8-BATTERY.

5. CAUTION FOR AC CORD (EB only)

5.1. INFORMATION FOR YOUR SAFETY

IMPORTANT
Your attention is drawn to the fact that recording of pre-recorded tapes or discs or other published or broadcast material may infringe copyright laws.

WARNING

To reduce the risk of fire or shock hazard, do not expose this equipment to rain or moisture.

CAUTION

To reduce the risk of fire or shock hazard and annoying interference, use the recommended accessories only.

FOR YOUR SAFETY
DO NOT REMOVE THE OUTER COVER
To prevent electric shock, do not remove the cover. No user serviceable parts inside. Refer servicing to qualified service personnel.

5.2. CAUTION FOR AC MAINS LEAD

For your safety, please read the following text carefully.
This appliance is supplied with a moulded three-pin mains plug for your safety and convenience.
A 5-ampere fuse is fitted in this plug.
Should the fuse need to be replaced please ensure that the replacement fuse has a rating of 5 amperes and it is approved by ASTA or BSI to BS1362
Check for the ASRA mark or the BSI mark on the body of the fuse.

ASTA mark	BSI mark

If the plug contains a removable fuse cover you must ensure that it is refitted when the fuse is replaced.
If you lose the fuse cover, the plug must not be used until a replacement cover is obtained.
A replacement fuse cover can be purchased from your local Panasonic Dealer.
If the fitted moulded plug is unsuitable for the socket outlet in your home then the fuse should be removed and the plug cut off and disposed of safety.

There is a danger of severe electrical shock if the cut off plug is inserted into any 13-ampere socket.
If a new plug is to be fitted please observe the wiring code as shown below.
If in any doubt, please consult a qualified electrician.

5.2.1. Important

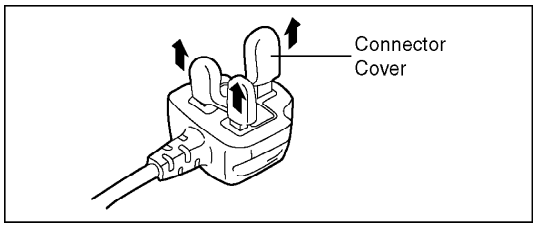
The wires in this mains lead are coloured in accordance with the following code:

Blue	**Neutral**
Brown	**Live**

As the colours of the wires in the mains lead of this appliance may not correspond with the coloured markings identifying the terminals in your plug, proceed as follows:
The wire which is coloured BLUE must be connected to the terminal in the plug which is marked with the letter N or coloured BLACK.
The wire which is coloured BROWN must be connected to the terminal in the plug which is marked with the letter L or coloured RED.
Under no circumstances should either of these wires be connected to the earth terminal of the three pin plug, marked with the letter E or the Earth Symbol.

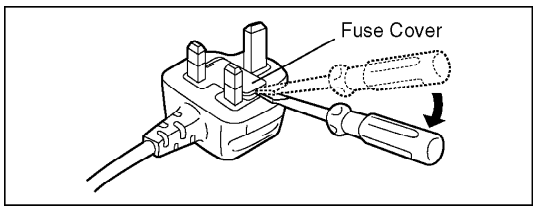
5.2.2. Before use

remove the Connector Cover as follows.

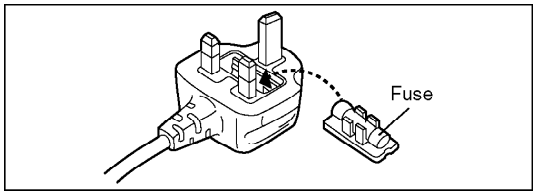


5.2.3. How to replace the Fuse

1. Remove the Fuse Cover with a screwdriver.



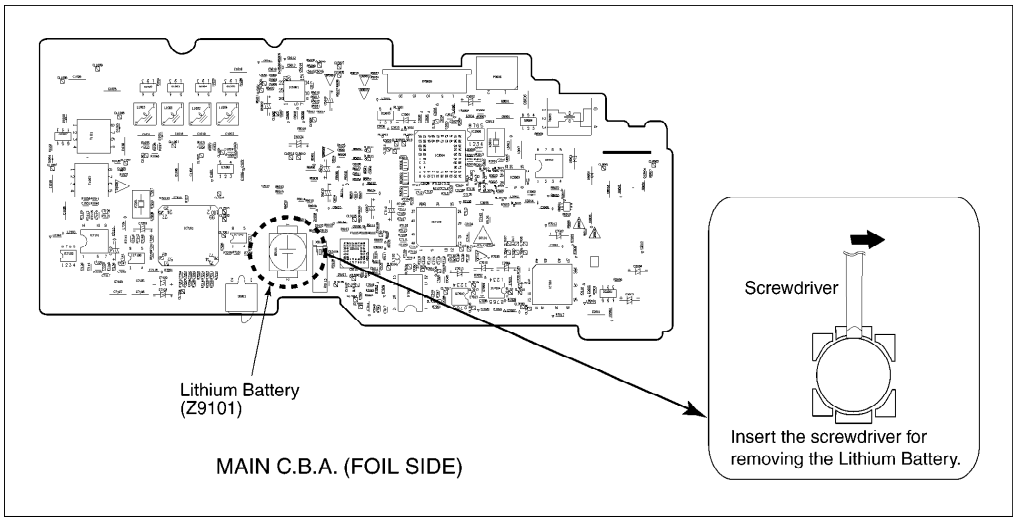
2. Replace the fuse and attach the Fuse cover.



6. HOW TO REPLACE THE LITHIUM BATTERY

6.1. REPLACEMENT PROCEDURE

1. Remove the MAIN C.B.A. (Refer to Disassembly Procedures.)
2. Remove the Lithium battery (Ref. No. “Z9101” at foil side of MAIN C.B.A.) and then replace it into new one.



NOTE:

This Lithium battery is a critical component. (Type No.: ML614S Manufactured by Matsushita Battery Industrial Co.,Ltd.)
It must never be subjected to excessive heat or discharge.
It must therefore only be fitted in requirement designed specifically for its use.
Replacement batteries must be of same type and manufacture.
They must be fitted in the same manner and location as the original battery, with the correct polarity contacts observed.
Do not attempt to re-charge the old battery or re-use it for any other purpose.
It should be disposed of in waste products destined for burial rather than incineration.

(For English)

CAUTION

Danger of explosion if battery is incorrectly replaced.
Replace only with the same or equivalent type recommended by the manufacturer.
Dispose of used batteries according to the manufacture's instructions.

(For French)

PRECAUTION

Le fait de remplacer incorrectement la pile peut présenter des risques d'explosion.
Remplacer la pile uniquement par une pile identique ou de type équivalent recommandée par le fabricant. Se débarrasser des piles usagées conformément aux instructions du fabricant.

(For German)

VORSICHT

Bei einer falsch eingesetzten Batterie besteht Explosionsgefahr. Nur mit einer vom Hersteller empfohlenen Batterie vom gleichen Typ ersetzen.
Verbrauchte Battrien beim Fachhändler oder einer Sammelstelle für Sonderstoffe abliefern.

(For Swedish)

VARNING

Explosionsfara vid felaktigt batteribyte.
Använd samma batterityp eller en ekvivalent typ som rekommenderas av apparattilverkaren.
Kassera använt batteri enligt fabrikantens instruktion.

(For Norwegian)

ADVARSEL!

Lithiumbatteri-Eksplosionsfare ved fejlagtig håndtering.
Udskiftning má kun ske med batteri af samme fabrikat og type.
Levér det brugte batteri tibage til leverandøren.

(For Finnish)

VAROITUS

Paristo voi räjähtää, jos se on virheellisesti asennettu.
Vaihda paristo ainoastaan laitevalmistajan suosittelemaan tyyppiin.
Hävitä käytetty paristo valmistajan ohjeiden mukaisesti.

7. OPERATING GUIDE

8. SERVICE NOTES

8.1. WHEN REPLACING THE MAIN C.B.A.

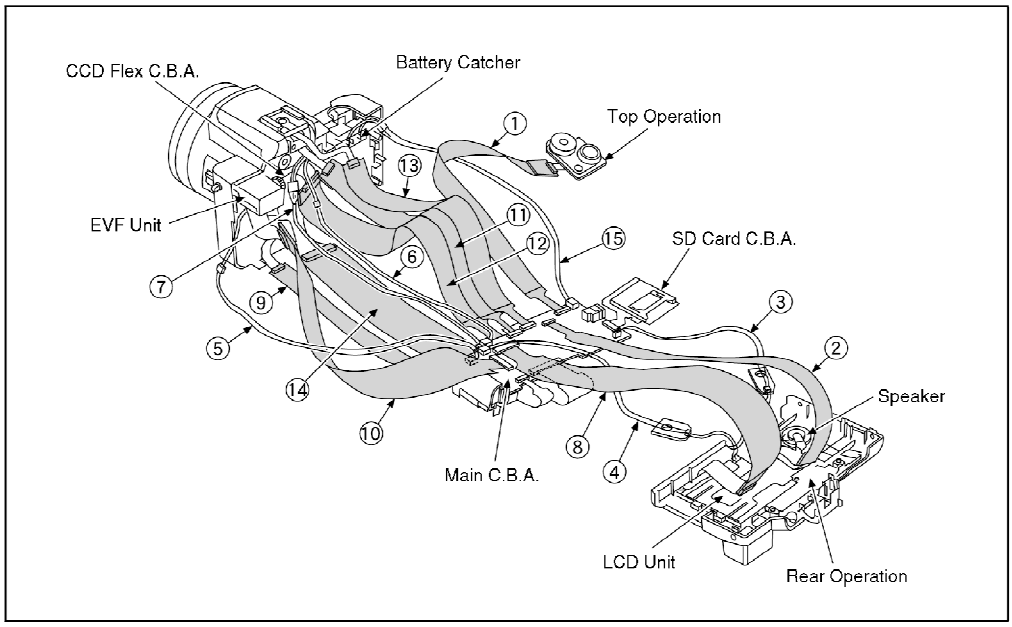
After replacing the MAIN C.B.A., be sure to achieve adjustment.
The adjustment instruction is available at "software download" on the "CS-Web from AVC" web-site in "TSN system", together with Maintenance software.

8.2. SERVICE POSITION

This Service Position is used for checking and replacing parts. Use the following Extension cables for servicing.

Table S1 Extension Cable List

No.	Parts No.	Connection	Form
1	VFK1582A1225	FP9003 (MAIN) - TOP OPERATION	12PIN 0.5 FFC
2		FP9002 (MAIN) - REAR OPERATION	12PIN 0.5 FFC
3	VFK1576DC202	P9001 (MAIN) - SPEAKER	2PIN CABLE
4		P9003 (MAIN) - LCD BACK LIGHT	2PIN CABLE
5		P9004 (MAIN) - EVF BACK LIGHT	2PIN CABLE
6	VFK1576DC202	P9005 (MAIN) - FLASH UNIT	2PIN CABLE
7	VFK1576DSC03	P9006 (MAIN) - FLASH UNIT	2PIN CABLE
8	VFK1284	FP9004 (MAIN) - LCD UNIT	24PIN 0.5 FFC
9	VFK1441	FP9011 (MAIN) - ENCODER UNIT	8PIN 0.5 FFC
10	VFK1282	FP9005 (MAIN) - EVF FLEX	22PIN 0.5 FFC
11	VFK1464	FP9007 (MAIN) - SIDE OPERATION UNIT	7PIN 0.5 FFC
12	VFK1461	FP9008 (MAIN) - CCD FLEX	20PIN 0.5 FFC
13	VFK1582A1025	FP9010 (MAIN) - HOT SHOE UNIT	10PIN 0.5 FFC
14	VFK1582A4525	FP9001 (MAIN) - LENS UNIT	45PIN 0.5 FFC
15	VFK1783	P9002 (MAIN) - BATTRY CATCHER	2PIN CABLE
16	-----	FP9009 (MAIN) - SD CARD C.B.A.	DIRECT CONNECT



CAUTION-1. (When servicing MAIN C.B.A.)

1. Be sure to discharge the capacitor o MAIN C.B.A.
Refer to “HOW TO DISCHARGE THE CAPACITOR ON MAIN C.B.A.”.
The capacitor voltage is not lowered soon even if the AC Cord is unplugged or the battery is removed.

2. Be careful of the high voltage circuit on MAIN C.B.A.

3. DO NOT allow other parts to touch the high voltage circuit on MAIN C.B.A.

8.3. HOW TO DISCHARGE THE CAPACITOR ON MAIN C.B.A.

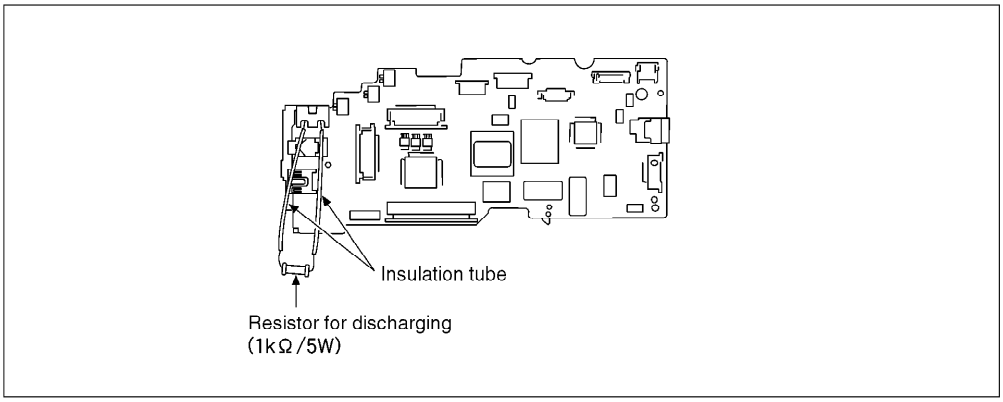
CAUTION:

1. Be sure to discharge the capacitor on MAIN C.B.A.
2. Be careful of the high voltage circuit on MAIN C.B.A. when servicing.

[Discharging Procedure]

1. Refer to the disassemble procedure and remove the necessary parts/unit.
2. Put the insulation tube onto the lead part of resistor (ERG5SJ102: 1k Ω /5W).
   (an equivalent type of resistor may be used.)
3. Put the resistor between both terminals of capacitor on MIAN C.B.A. for approx. 5 seconds.
4. After discharging confirm that the capacitor voltage is lower than 10V using a voltmeter.

Fig. F1



8.4. CLEANING LENS, VIEWFINDER AND LCD PANEL

Do not touch the surface of lens, viewfinder and LCD Panel with your hand.
When cleaning the lens, use air-Blower to blow off the dust.
When cleaning the viewfinder and LCD Panel, dampen the lens cleaning paper with lens cleaner, and the gently wipe the their surface.

Note:

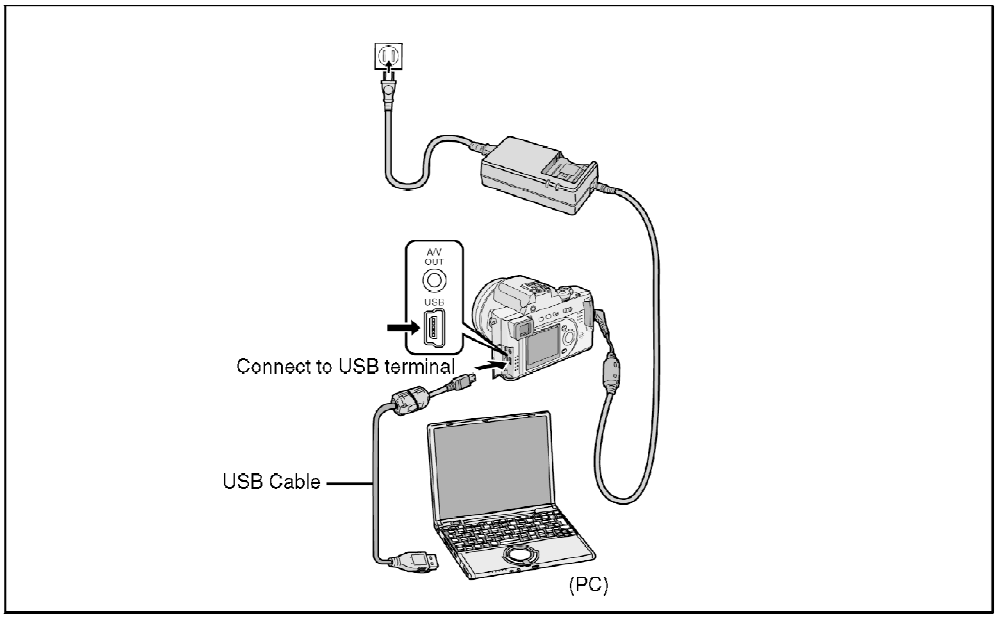
A lens cleaning paper and lens cleaner are available at local camera shops and market place.

9. ADJUSTMENT PROCEDURES

Although the repair of Main C.B.A. is separated, it needs the electrical adjustment and factory setting when it is replaced the Main C.B.A., IC6004 (Flash-ROM) and related parts.
The electrical adjustment in this unit is separated two types as shown below.
(Concerning to the adjustment conditions and procedures, please use the "Adjustment Manual" contained in "View 3" on the web-site.

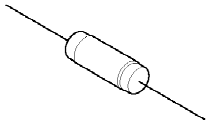
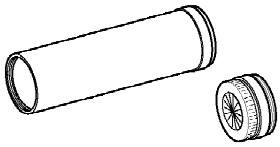
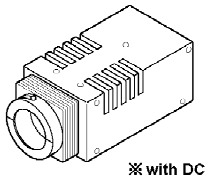
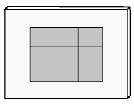
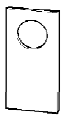
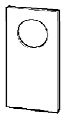
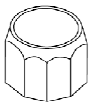
1. Main unit adjustment: All adjustments except for LCD and EVF adjustments.
This unit mounts the adjustment software for main unit, it wouldn't need the connection between the PC and this unit with USB cable.

2. LCD and EVF adjustment: Adjustments for LCD and EVF.
It need the connection between the PC and this unit with USB cable.
(This adjustments needs the adjustment software contained in "View 3".
The connection is shown to the figure below.



9.1. SERVICE FIXTURE AND TOOLS

The following Service Fixture and tools are used for checking and servicing this unit.

Resistor for Discharging ERG5SJ102	Infinity Lens (with Focus Chart) VFK1164TCM02	LIGHT BOX VFK1164TDVLB
 An equivalent type of Resistor may be used.		 ※with DC Cable
Colour Bar Chart VFK1828	Filter (Slip-in Type) ND0.1 Type VFK1164ND01 (2 sheet are required for adjustment)	Color temperature conversion filter VFK1164LBB1
	 An equivalent type of Filters may be used.	 An equivalent type of Filters may be used.
Grease (for lens) VFK1829	Dome type magnifying glass VFK1835	Hanarl oil VFK1700
		

10. ERROR CODE MEMORY FUNCTION

1. General description

This unit is equipped with history of error code memory function, and can be memorized 32 error codes in sequence from the latest. When the error is occurred more than 32, oldest error is overwritten in sequence.

The error code is not memorized when the power supply is shut down forcibly (when the unit is powered on by the battery, the battery is pulled out) because the error code is memorized to FLASH ROM when the unit is powered off.

2. How to display

The error code can be displayed by the following procedure: Before perform the error code memory function, connect the AC adaptor or insert the battery, and insert the SD card.

- 1. The temporary cancellation of factory setting:
Set the mode dial to “ [P] (Red mark)”.
While pressing [Burst] and “ [UP] of Cross key” simultaneously and hold them, turn the Power on.

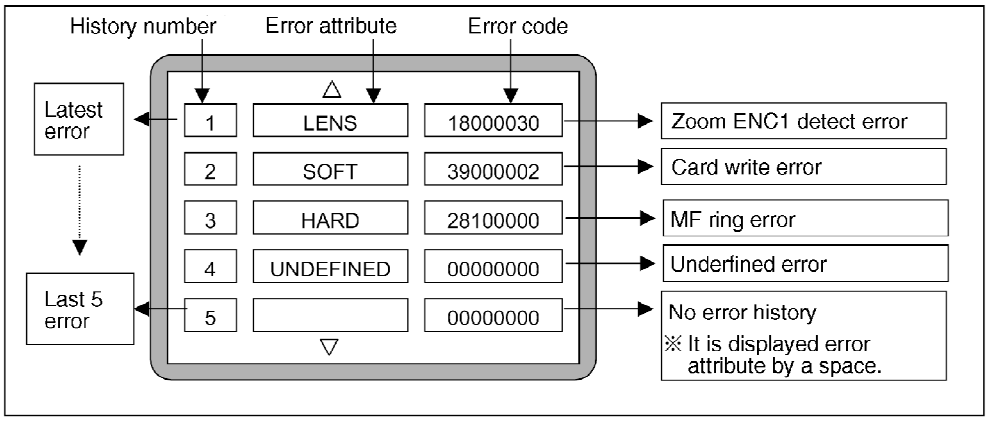
- 2. The display of error code:

Press [Burst] , [MENU] and " [LEFT] of Cross key" simultaneously with the step 1 condition.

The display is changed as shown below when the above buttons is pressed simultaneously.

Normal display →Error code display →Operation history display →Normal display →.....

Example of Error Code Display



- 3. The change of display:

The error code can be memorized 32 error codes in sequence, however it is displayed 5 errors on the LCD.

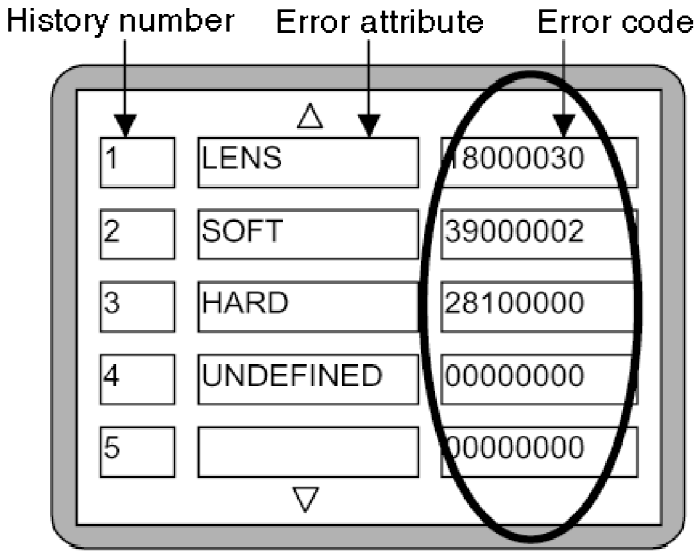
Display can be changed by the following procedure:

" [UP] or [DOWN] of Cross key": It can be scroll up or down one.

" [LEFT] or [RIGHT] of Cross key": It can be display last 5 error or another 5 error.

- 4. How to read the error code:

One error code is displayed for 8 bit, the contents of error codes is indicated the table as shown below.



			Error code			
Attribute	Main item	Sub item	High 4 bits	Low 4 bits	Contents	Inspection Points
LENS	Lens drive	OIS related	1800	1000	PSD(X) error Hole element (X axis) position detect error in OIS unit	OIS Unit
				2000	PSD(Y) error Hole element (Y axis) position detect error in OIS unit	OIS Unit
				3000	GYRO(X) error Gyro element (IC7104:X axis) detect error on Main C.B.A.	IC7104(Gyro element) or IC7201(Sub-ucom)
				4000	GYRO(Y) error Gyro element (IC7105:Y axis) detect error on Main C.B.A.	IC7105(Gyro element) or IC7201(Sub-ucom)
				5000	MREF error (Reference voltage error)	IC7102(OIS driver) or IC7201(Sub-ucom)
		CO. Barrel related		0100	HP Low detect error (CO. Barrel encoder<full retract> always Low detect error)	FP9001-(34) signal line or IC7201(Sub-ucom)
				0200	HP High detect error (CO. Barrel encoder<full retract> always High detect error)	FP9001-(34) signal line or IC7201(Sub-ucom)
				0300	ENC1 detect error (CO. Barrel motor encoder detect error)	FP9001-(45) signal line or IC7201(Sub-ucom)
		Zoom related		0010	HP Low detect error (Zoom encoder always Low detect error)	FP9001-(31) signal line or IC7201(Sub-ucom)
				0020	HP High detect error (Zoom encoder always High detect error)	FP9001-(31) signal line or IC7201(Sub-ucom)
		Focus related		0001	HP Low detect error (Focus encoder always Low detect error)	FP9001-(11) signal line or IC7201(Sub-ucom)
				0002	HP High detect error (Focus encoder always High detect error)	FP9001-(11) signal line or IC7201(Sub-ucom)
	Sub-ucom related	Communication (VENUS⇔OIS)	1801	0000	VENUS check sum error	Communication between IC6005(VENUS) and IC7201 (Sub-ucom). • IC7201(Sub-ucom) or periphery parts • IC6005(VENUS) or periphery parts
			1802		Sub-ucom check sum error	
			1803		R/B Low detect error	
			1804		R/B High detect error	
		IC7202(EEPROM)	1810		Read error	Communication between IC6005(VENUS) and IC7201 (Sub-ucom).
HARD	VENUS A/D	Flash	2800	0001	Flash recharging error	IC6005-(4) signal line or Flash recharging circuit
		MF Ring	2810	0000	MF Ring error	Communication between IC6005(VENUS) and focus encoder.
		AF frame, CCD power	2901	0000	VENUS resistor	IC6005(VENUS) or periphery circuit
SOFT	CPU, ASIC hard	Monitor related	3800	1000	AF frame movement check time out	Communication between IC6005(VENUS) and IC7201 (Sub-ucom).
		Stop related		0001	Camera task finish process time out	Communication between IC6005(VENUS) and IC7201 (Sub-ucom).
				0002	Camera task invalid code error	Communication between IC6005(VENUS) and IC7201 (Sub-ucom).
	Card related	Card related	3900	0001	Read error	SD card data line or IC6005(VENUS)
				0002	Write error/delete error	SD card data line or IC6005(VENUS)
				0003	Format error	SD card data line or IC6005(VENUS)
				0004	Media error/No supported file system error(Media detect error)	Media detect switch or media is defective.
	Communication	Communication (USB)	3A00	0001	Read error	USB data line or IC6005(VENUS)
				0002	Write error/delete error	USB data line or IC6005(VENUS)
				0003	Host side STALL	USB data line or IC6005(VENUS)
				0004	Printer error	Confirm the printer
				0005	DISCOVERY process failure	Confirm the printer
				0006	No printer connection	Confirm the printer
				0007	No printer respondence	Confirm the printer

- 5. How to returned to Normal Display:
Turn the power off and on, to exit from Error code display mode.

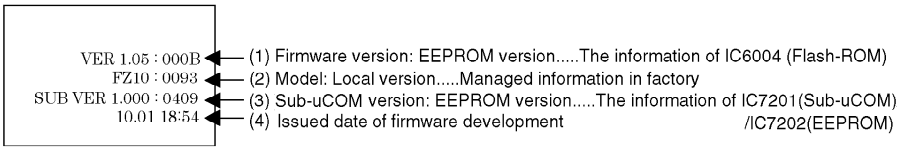
NOTE:
The error code can not be initialized by the unit only.

11. CONFIRMATION OF FIRMWARE VERSION

The Firmware version can be confirmed by ordering the following steps:.

- Step 1. Turn the Power on:
Turn the Power on with inserting the SD memory card which has a few photo data.

- Step 2. Confirm the version:
Set the mode dial to “ [Playback] ”.
Press [Burst] and “ [DOWN] of Cross key” simultaneously. (No need to keep pressing.)
(The version information is displayed on the LCD with red colour letters.)


VER 1.05 : 000B
FZ10 : 0093
SUB VER 1.000 : 0409
10.01 18:54
(1) Firmware version: EEPROM version.....The information of IC6004 (Flash-ROM)
(2) Model: Local version.....Managed information in factory
(3) Sub-uCOM version: EEPROM version.....The information of IC7201(Sub-uCOM) /IC7202(EEPROM)
(4) Issued date of firmware development

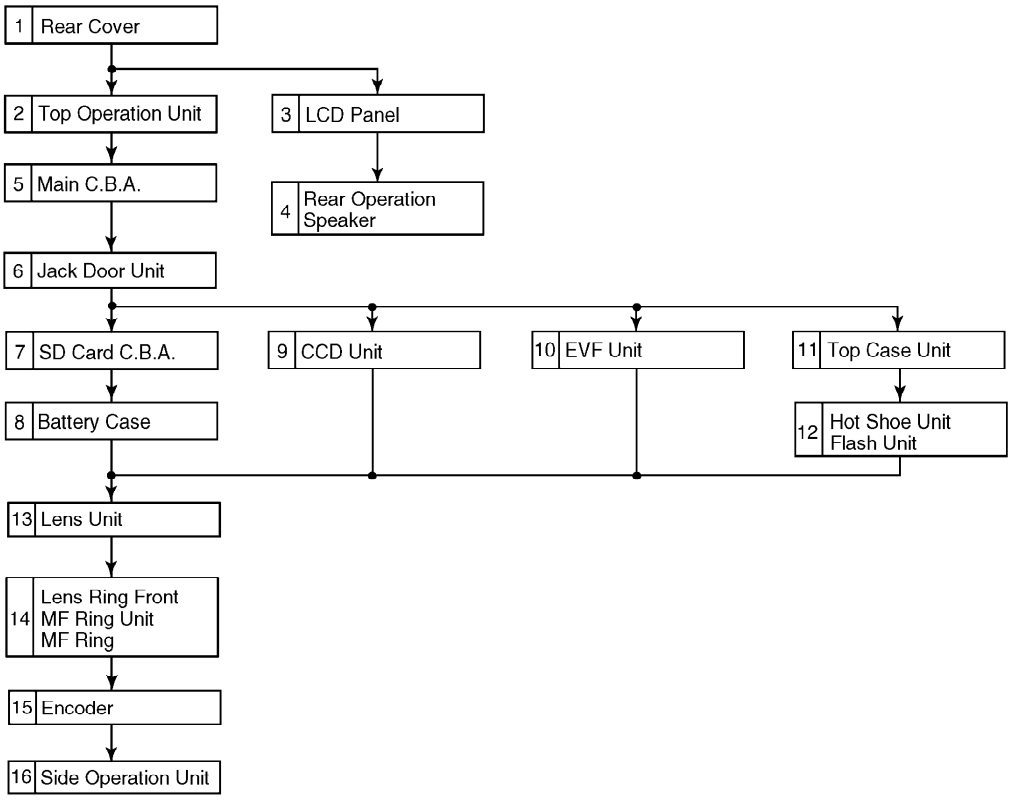
<Point>

- The firmware version and EEPROM version can be confirmed with the information (1).
- The information (2)-(4) are just reference.

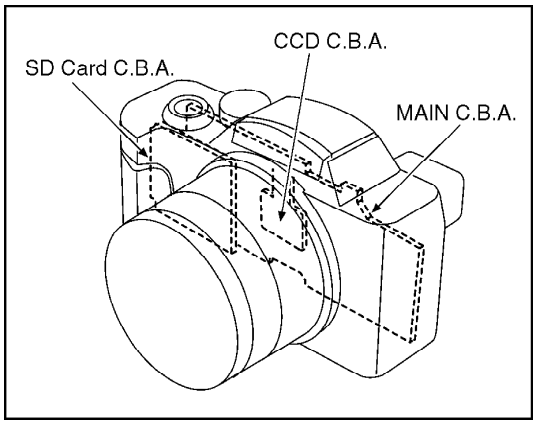
<NOTE>
The Sub-uCOM version (stored in IC7201: Masked type) is not rewrite-able. / Necessary data of IC7202 (EEPROM) is updated automatically, when the stored data in IC6004 (Flash ROM) is changed.

12. DISASSEMBLY PROCEDURE

12.1. DISASSEMBLY FLOW CHART



12.2. C.B.A. LOCATION



12.3. DIASSEMBLY PROCEDURE

No.	Item	Fig.	Removal
1	Rear Cover	Fig. D1	Card
			Battery
			6 Screws <A>
			1 Screw <B>
			Shoe Spring
		Fig. D2	P9001(Connector)
			P9003(Connector)
			FP9002(Flex)
			FP9004(Flex)
			Rear Cover
2	Top Operation Unit	Fig. D3	FP9003(Flex)
			1 Screw <C>
			Top Operation Unit
3	LCD Panel	Fig. D4	1 Screw <D>
			LCD Holder
			LCD Panel
			2 Locking tabs
			2 Hooks
4	Rear Operation Unit	Fig. D5	3 Screws <E>
			Rear Operation Unit
5	Main C.B.A.	Fig. D6	P9002(Connector)
			P9004(Connector)
			P9005(Connector)
			FP9001(Flex)
			FP9005(Flex)
			FP9007(Flex)
			FP9009(Flex)
			FP9010(Flex)
			FP9011(Flex)
			2 Screws <F>
		Fig. D7	P9006(Connector)
			FP9008(Flex)
			Main C.B.A.
6	Jack Door Unit	Fig. D8	1 Screw <G>
			3 Locking tabs
			Jack Door Unit
7	SD Card C.B.A.	Fig. D9	1 Screw <H>
			3 Locking tabs
			SD Card C.B.A.
8	Battery Case	Fig. D10	1 Screw <I>
			1 Screw <J>
			Battery Case

			Battery Case
9	CCD Unit	Fig. D11	3 Screws <K>
			CCD Unit
10	EVF Unit	Fig. D12	EVF Unit
11	Top Case Unit	Fig. D13	2 Screws <L>
			1 Screw <M>
			1 Screw <N>
			Flash Plate
			Strap Plate
			Top Case Unit
12	Hot Shoe Unit / Flash Unit	Fig. D14	2 Screws <O>
			Flash Top Cover
			Flash Lock Button
			2 Locking tabs
		Fig. D15	1 Screw <P>
			2 Screws <Q>
			1 Screw <R>
			Hot Shoe Unit
		Fig. D16	2 Locking tabs
			Flash Unit
		Fig. D17	Flash Bottom Cover
			Top Base Unit
13	Lens Unit	Fig. D18	2 Screws <S>
			Lens Unit
14	Lens Ring Front / MF Ring Unit / MF Ring	Fig. D19	3 Screws <T>
			3 Screws <U>
			Lens Ring Front
			MF Ring Unit
			MF Ring
15	Encoder Unit	Fig. D20	2 Screws <V>
			Encoder Unit
16	Side Operation Unit	Fig. D21	1 Screw <W>
		Fig. D22	Side Operation Holder
			Side Operation Unit

12.3.1. Removal of the Rear Cover

Fig. D1

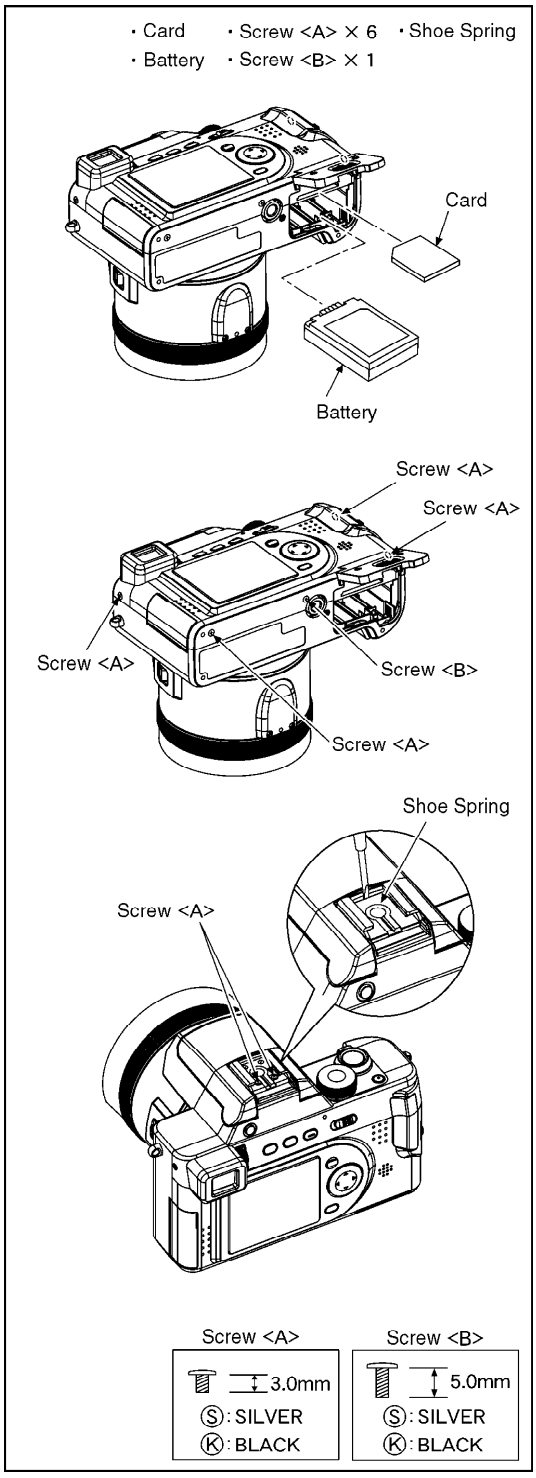
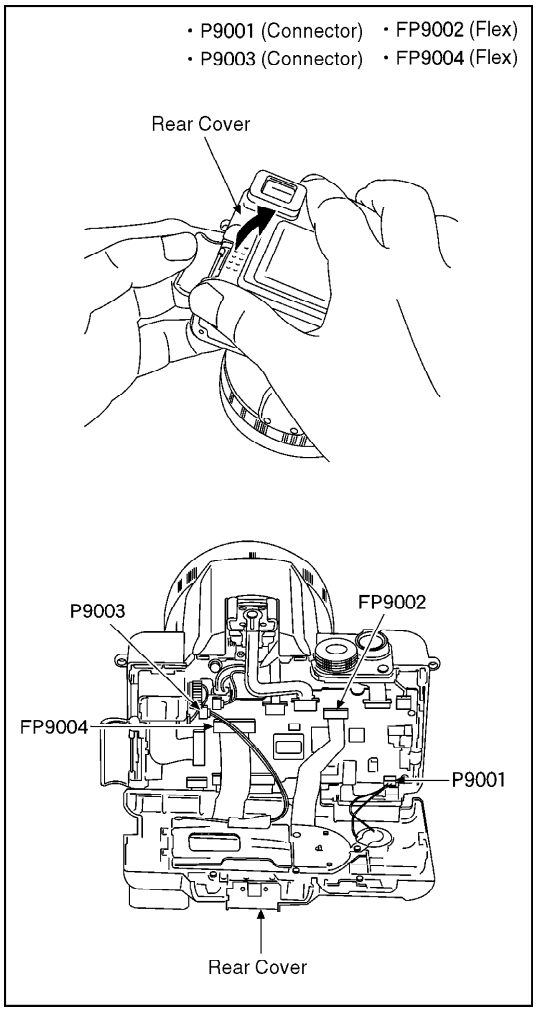
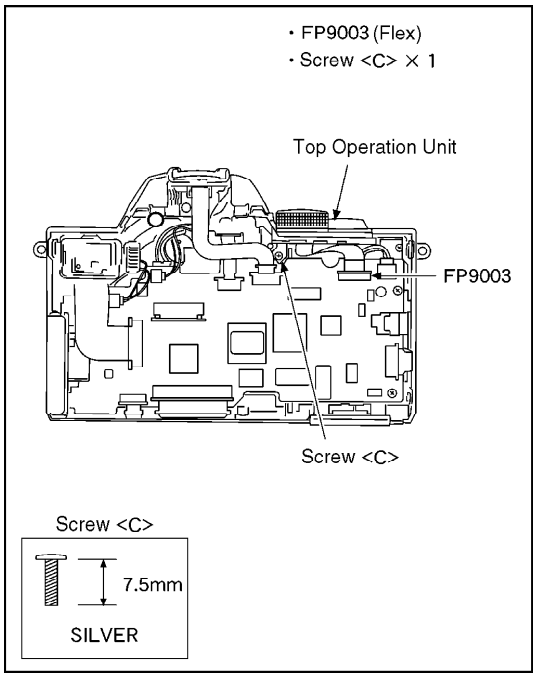

・Card
・Screw <A> × 6
・Shoe Spring
・Battery
・Screw <B> × 1
Card
Battery
Screw <A>
Screw <A>
Screw <A>
Screw <B>
Screw <A>
Shoe Spring
Screw <A>
Screw <A>
Screw <B>
3.0mm
Ⓢ: SILVER
Ⓚ: BLACK
5.0mm
Ⓢ: SILVER
Ⓚ: BLACK

Fig. D2



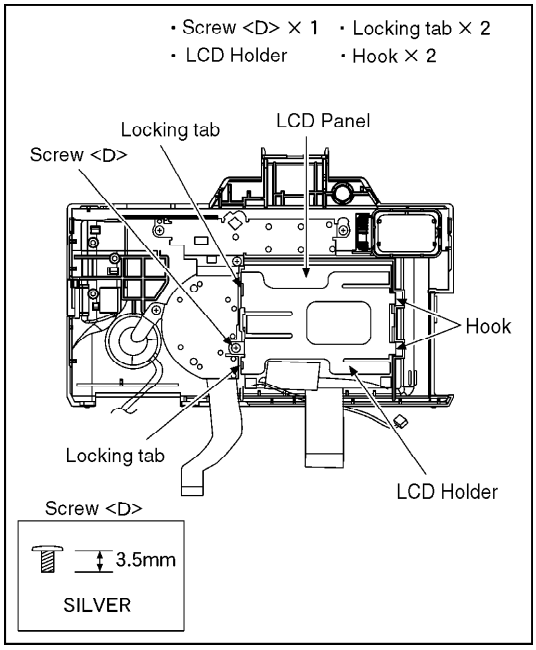
12.3.2. Removal of the Top Operation

Fig. D3



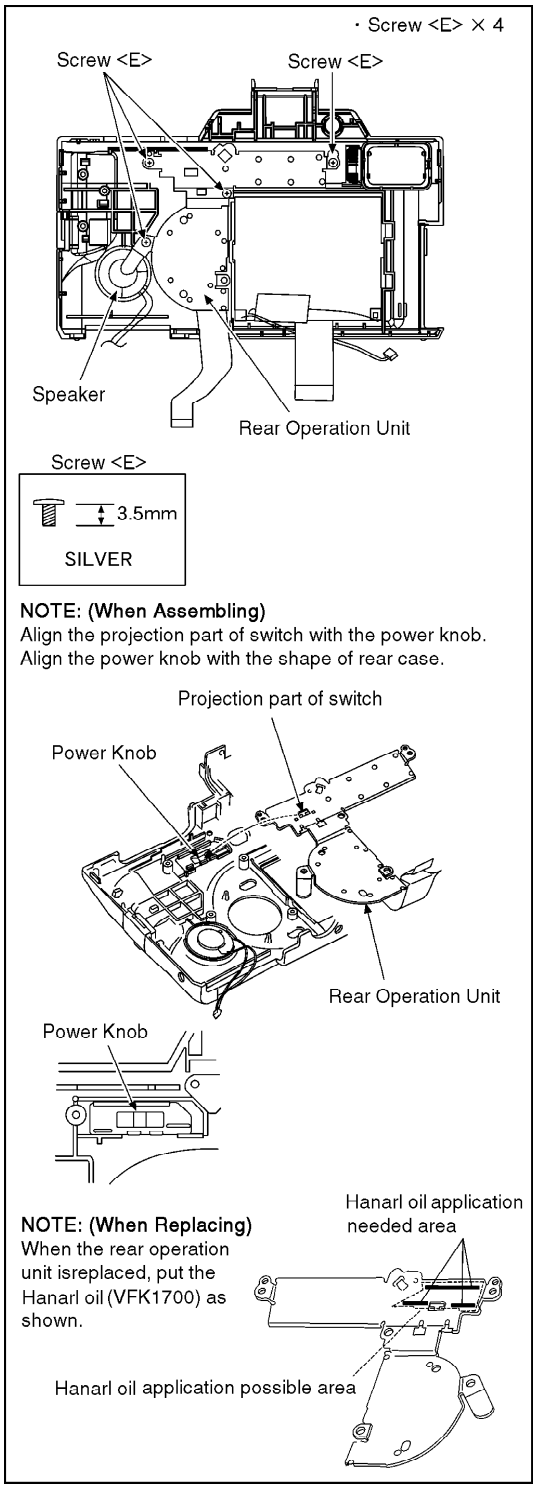
12.3.3. Removal of the LCD Panel

Fig. D4



12.3.4. Removal of the Rear Operation Unit and Speaker

Fig. D5



12.3.5. Removal of the Main C.B.A.

Fig. D6

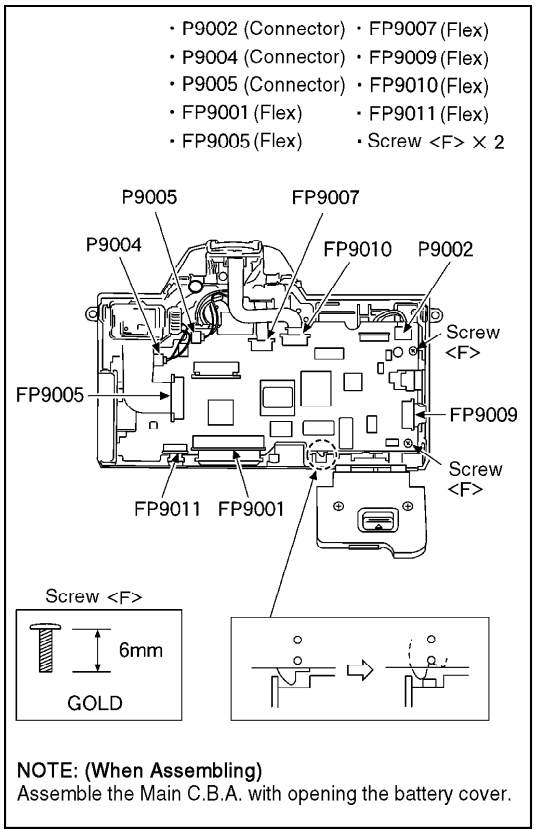
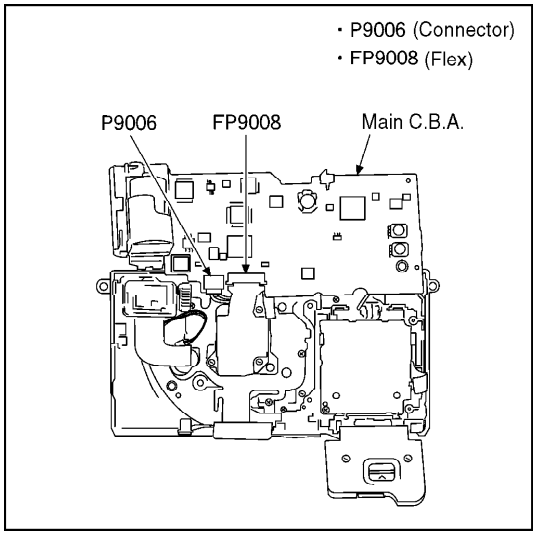
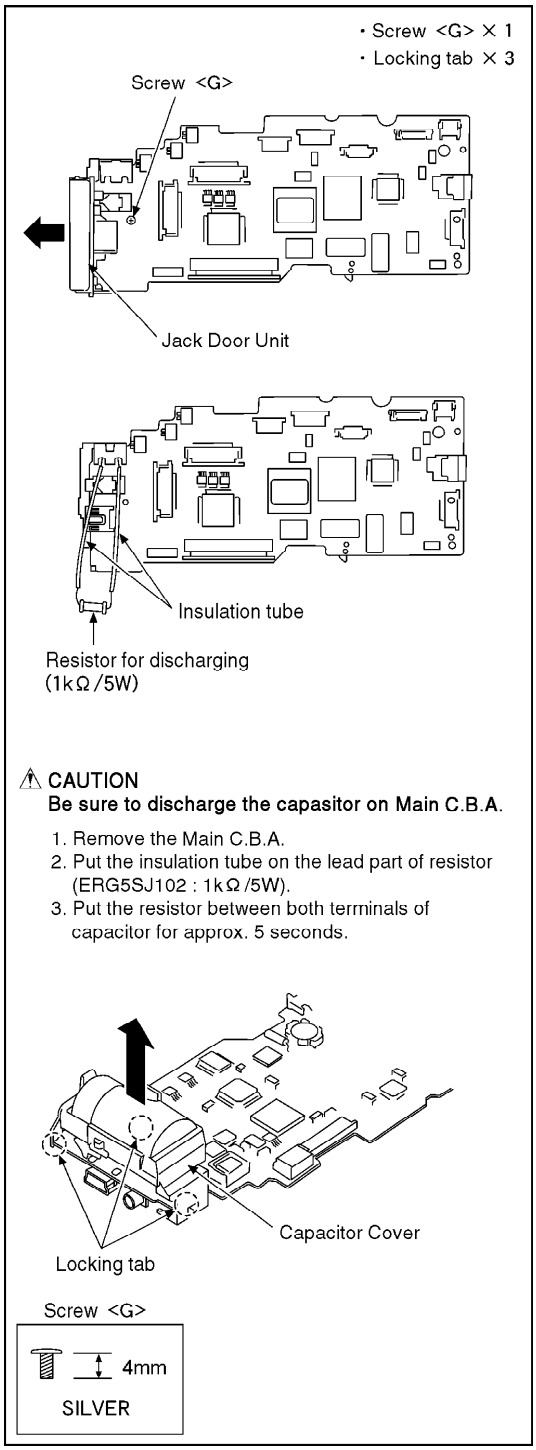


Fig. D7



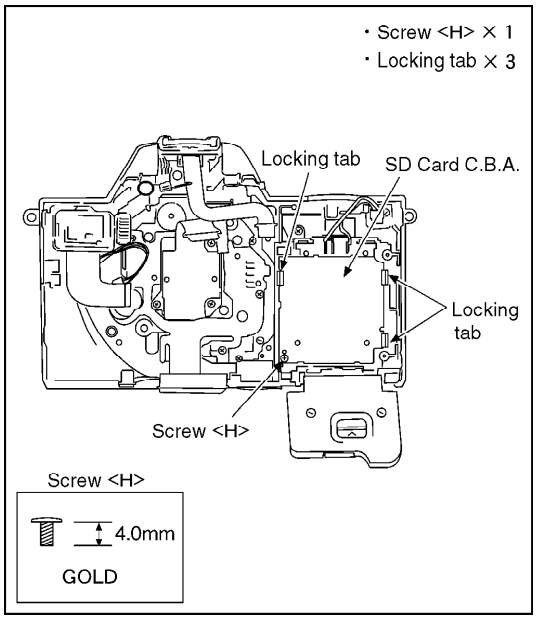
12.3.6. Removal of the Jack Door Unit

Fig. D8


• Screw <G> × 1
• Locking tab × 3
Screw <G>
Jack Door Unit
Insulation tube
Resistor for discharging
(1kΩ/5W)
⚠ CAUTION
Be sure to discharge the capasitor on Main C.B.A.
1. Remove the Main C.B.A.
2. Put the insulation tube on the lead part of resistor (ERG5SJ102 : 1kΩ/5W).
3. Put the resistor between both terminals of capacitor for approx. 5 seconds.
Capacitor Cover
Locking tab
Screw <G>
4mm
SILVER

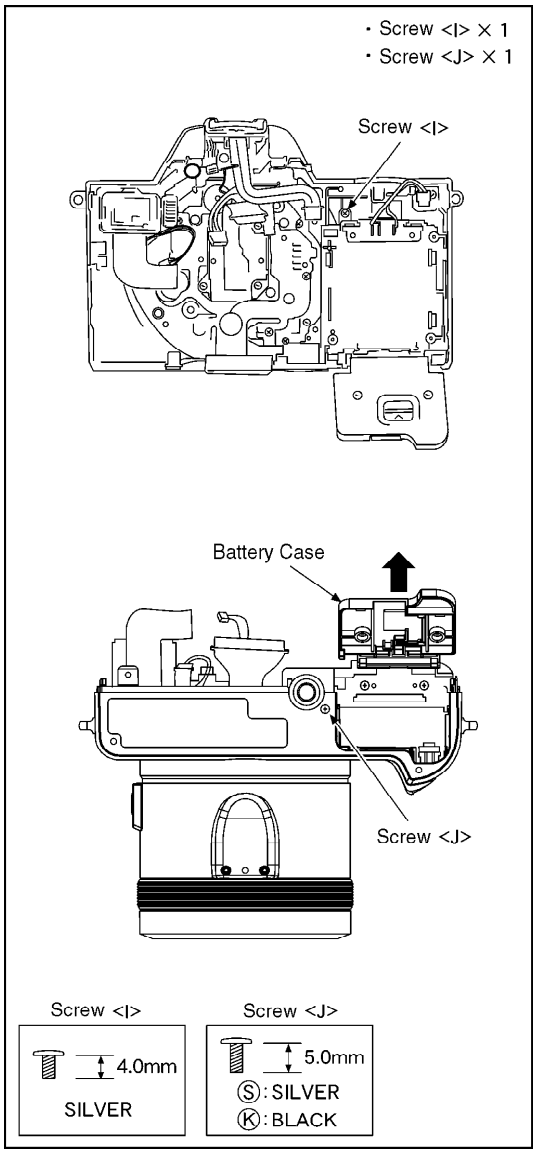
12.3.7. Removal of the SD Card C.B.A.

Fig. D9



12.3.8. Removal of the Battery Case

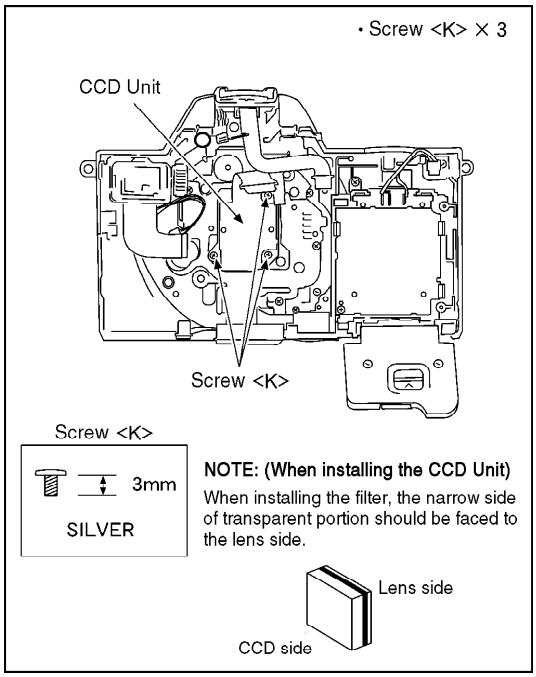
Fig. D10



12.3.9. Removal of the CCD Unit

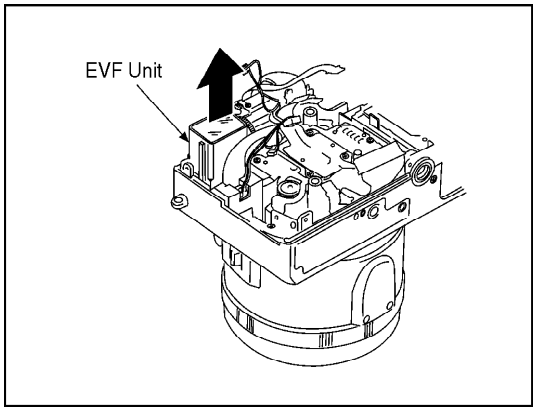
To Prevent the CCD unit from catching the dust and dirt, do not remove the CCD unit except for replacing.

Fig. D11



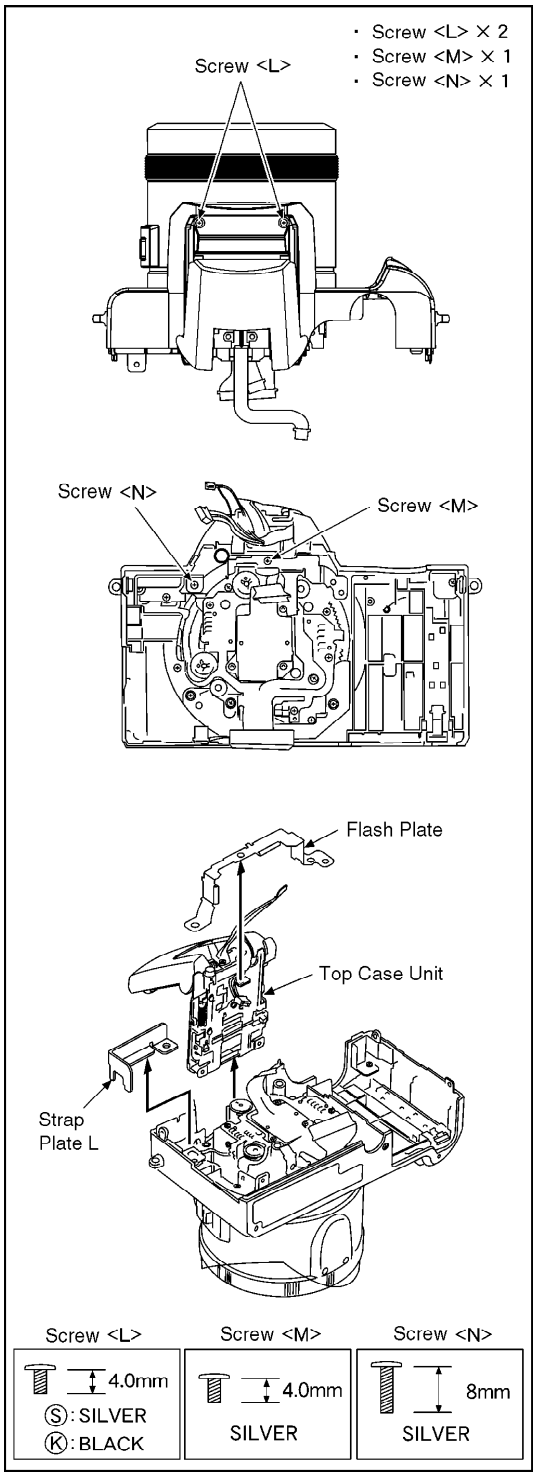
12.3.10. Removal of the EVF Unit

Fig. D12



12.3.11. Removal of the Top Case Unit

Fig. D13

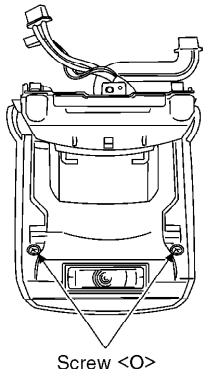


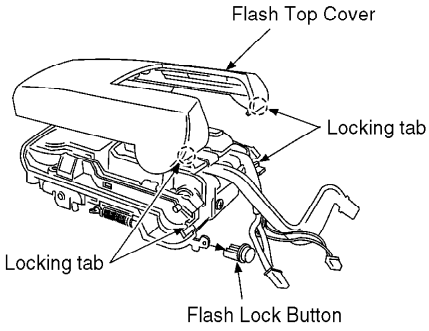
12.3.12. Removal of the Hot Shoe Unit and Flash Unit

Fig. D14

- Screw <O> × 2
- Flash Top Cover
- Flash Lock Button
- Locking tab × 2

Removal of the Top Cover





NOTE: (When Removing)
Remove the both sides of locking tabs in the rear of flash top cover, and then remove the flash top cover.

Screw <O>

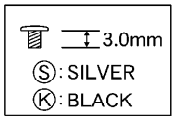
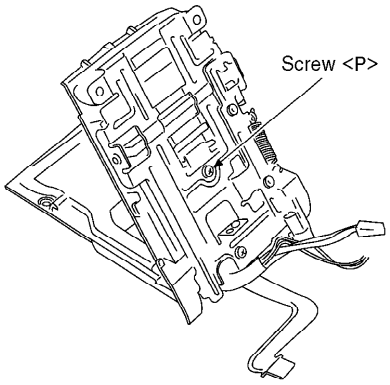
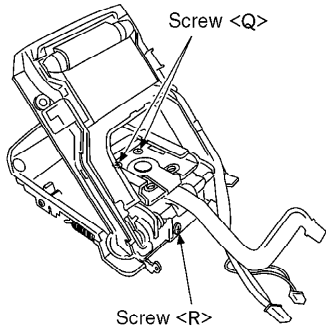


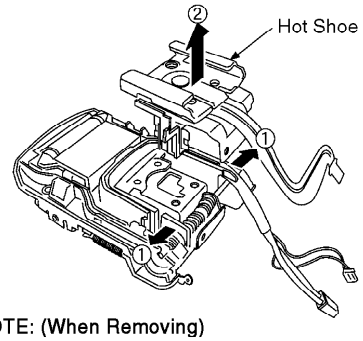
Fig. D15

- Screw <P> × 1
- Screw <Q> × 2
- Screw <R> × 1
- Locking tab × 2

Removal of the Hot Shoe Unit





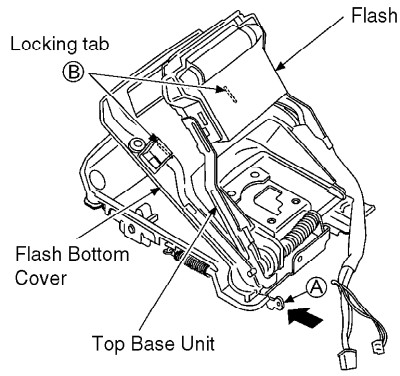


NOTE: (When Removing)
Spread the edge part of top case unit in the direction of arrow ① , remove the hot shoe unit in the direction of arrow ② .

Screw <P>	Screw <Q>	Screw <R>
4.0mm SILVER	4.0mm Ⓢ: SILVER Ⓚ: BLACK	4.0mm SILVER

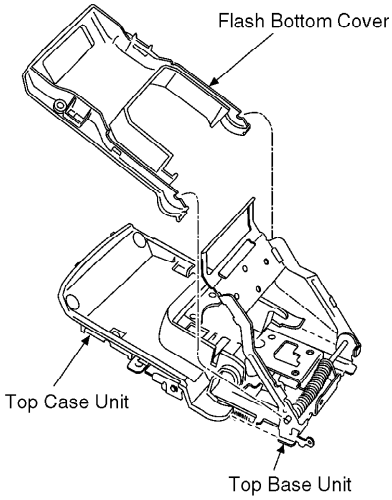
Fig. D16

Removal of the Flash Unit



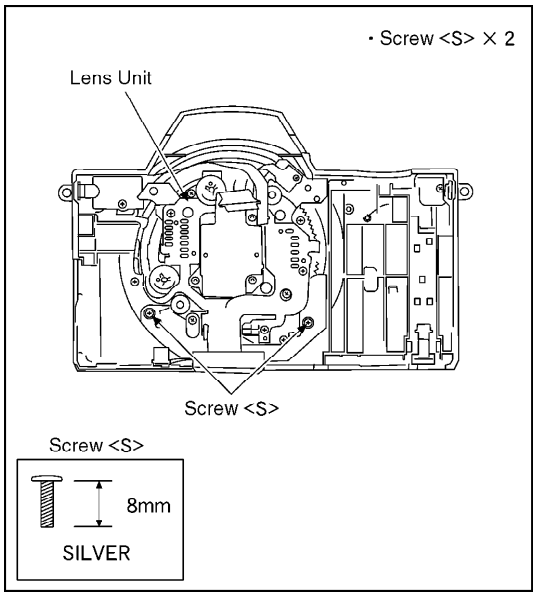
NOTE: (When Removing)
1. Push the part of Ⓐ in the direction of arrow, and then the top base unit is popup.
2. Remove the 2 locking tabs Ⓑ.

Fig. D17



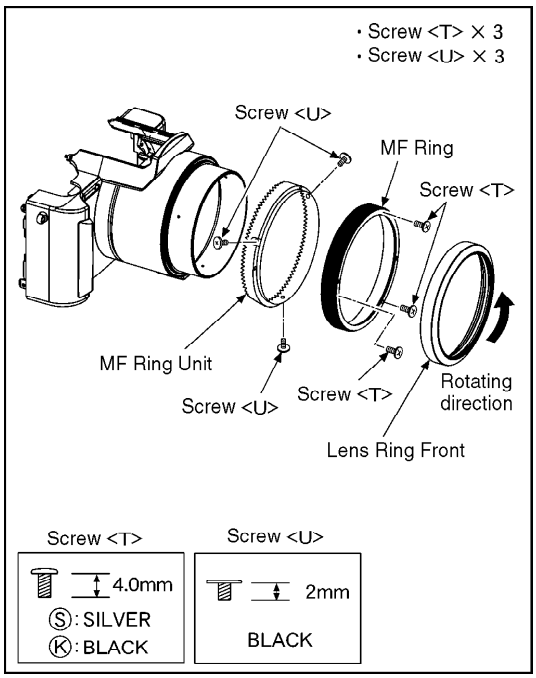
12.3.13. Removal of the Lens unit

Fig. D18



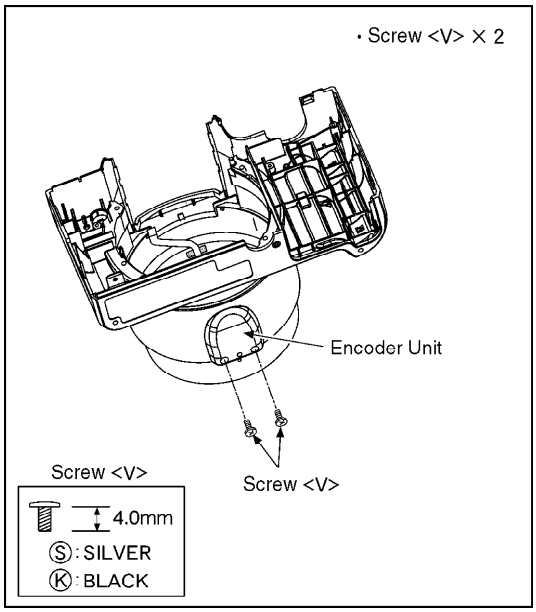
12.3.14. Removal of the Lens Ring Front, MF Ring Unit and MF Ring

Fig. D19



12.3.15. Removal of the Encoder Unit

Fig. D20



12.3.16. Removal of the Side Operation Unit

Fig. D21

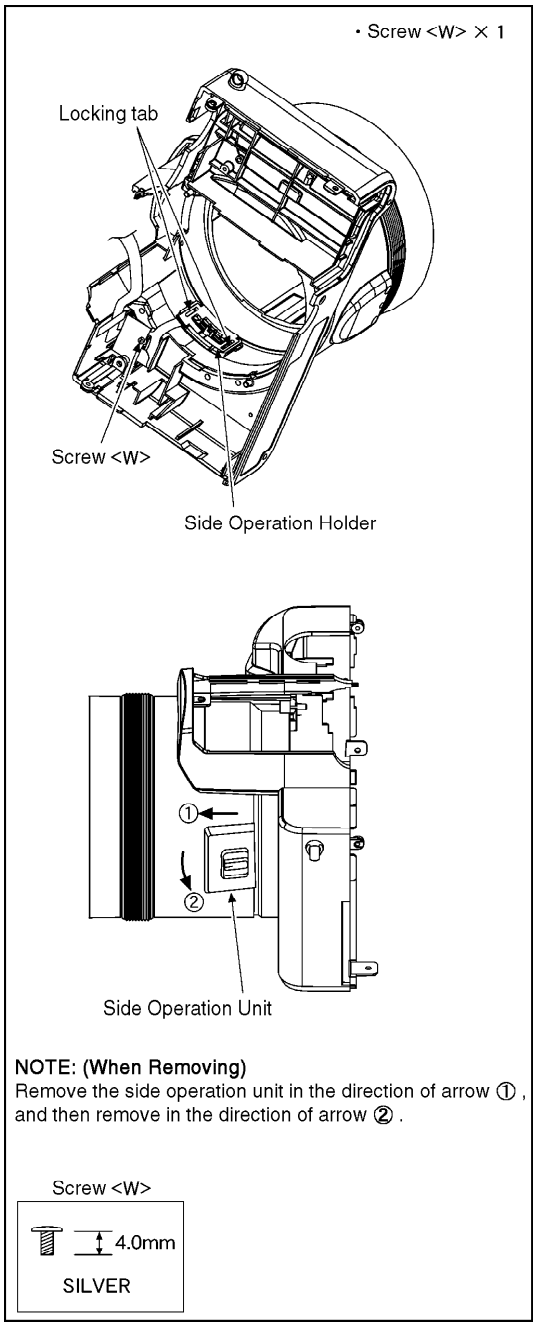
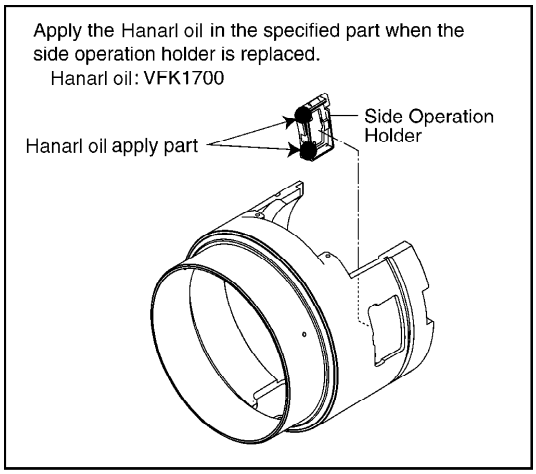

• Screw <W> × 1
Locking tab
Screw <W>
Side Operation Holder
①
②
Side Operation Unit
NOTE: (When Removing)
Remove the side operation unit in the direction of arrow ① , and then remove in the direction of arrow ② .
Screw <W>
4.0mm
SILVER

Fig. D22

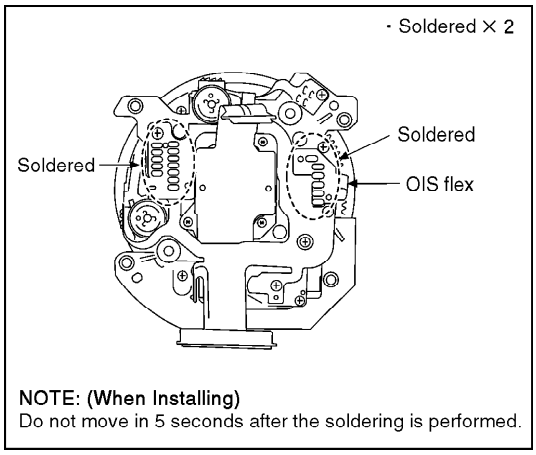

Apply the Hanarl oil in the specified part when the side operation holder is replaced.
Hanarl oil: VFK1700
Side Operation Holder
Hanarl oil apply part

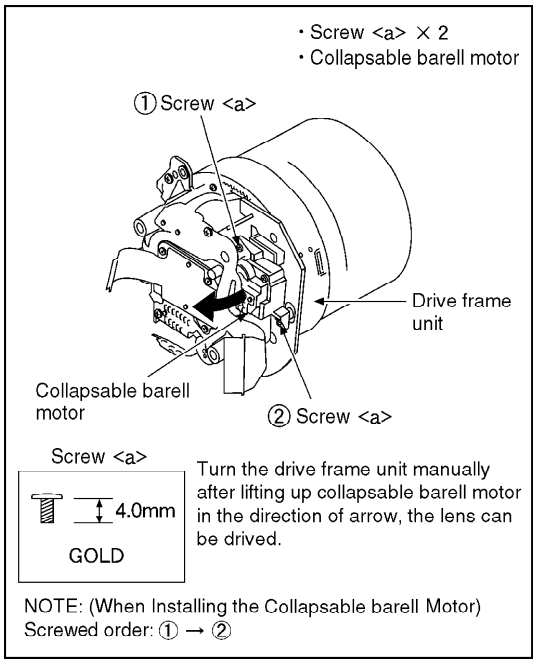
12.4. DISASSEMBLY/ASSEMBLY PROCEDURE FOR THE LENS

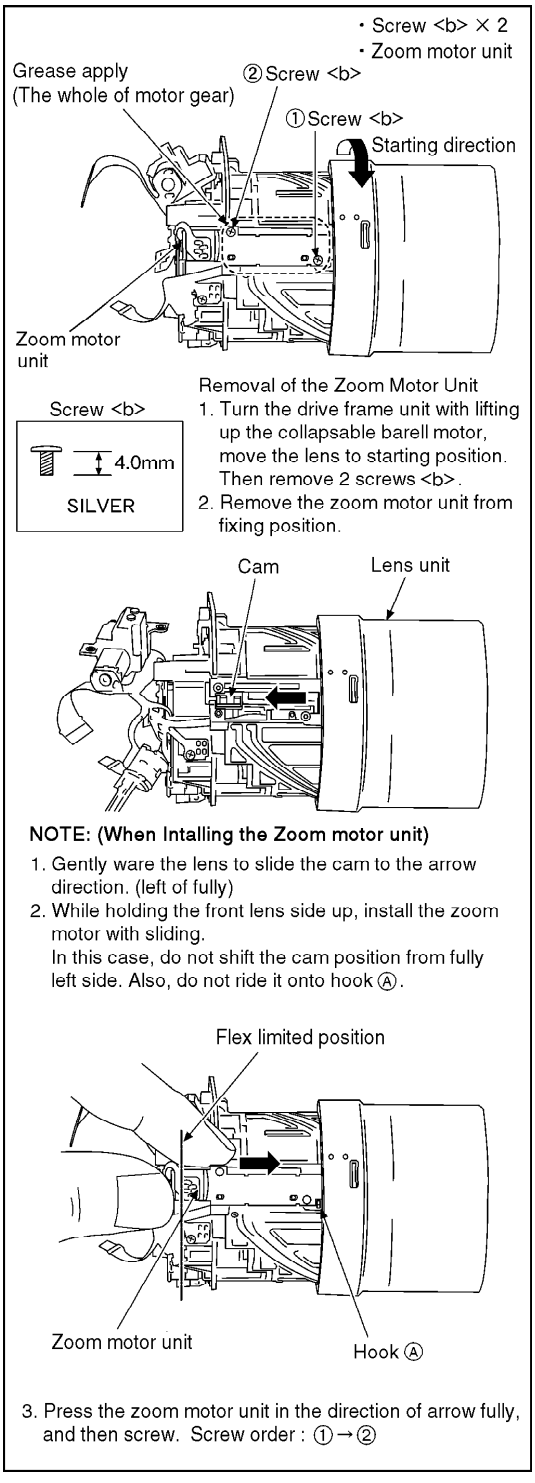
NOTE: When Disassembling and Assembling for the Lens

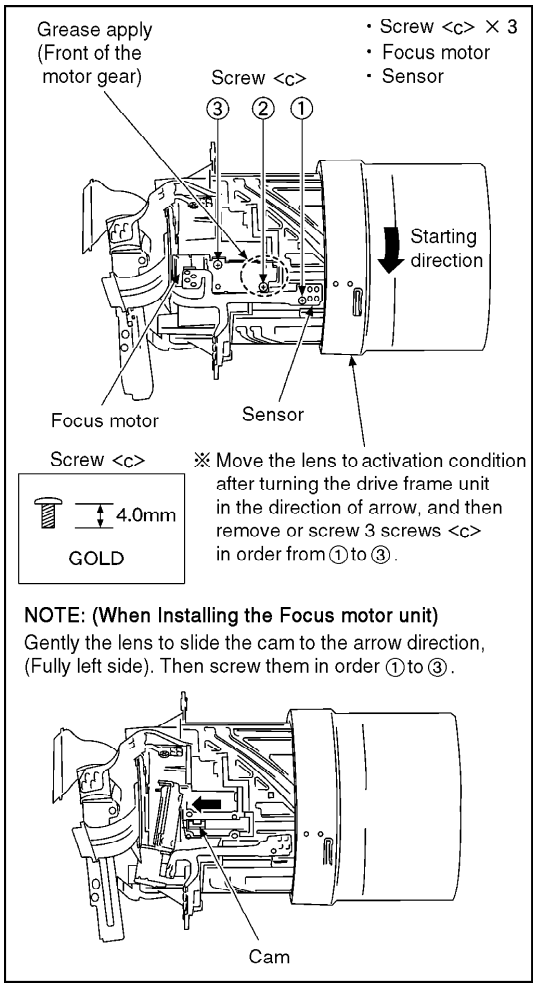
1. **To prevent the lens from catching the dust and dirt, perform the following procedures with the CCD unit is installing. Disassembling procedures for the CCD unit, refer to item 12.3.9.**
2. **Take care that the dust and dirt are not entered into the lens. In case of the dust is putted on the lens, blow off them by airbrush.**
3. **Do not touch the surface of lens.**
4. **Apply the grease (VKF1829) to the point where is shown to "Grease apply" in the figure. When the grease is applied, use a toothpick and apply thinly.**

12.4.1. Removal of the Master Flange Unit

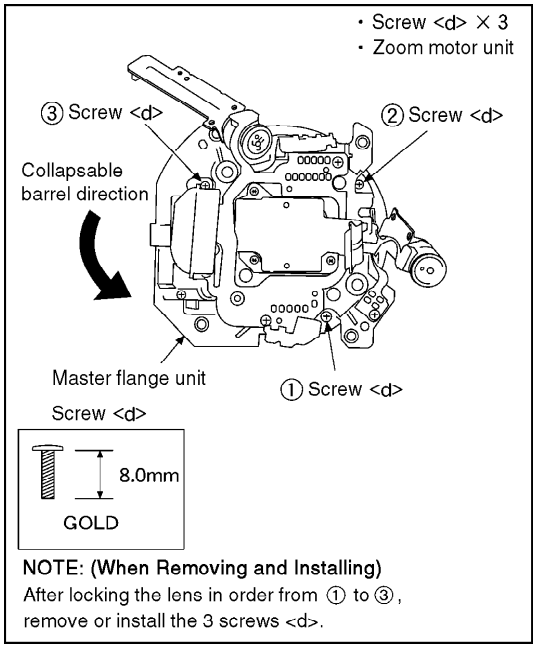



・Screw <a> × 2
・Collapsable barell motor
① Screw <a>
Drive frame unit
Collapsable barell motor
② Screw <a>
Screw <a>
4.0mm
GOLD
Turn the drive frame unit manually after lifting up collapsable barell motor in the direction of arrow, the lens can be drived.
NOTE: (When Installing the Collapsable barell Motor)
Screwed order: ① → ②

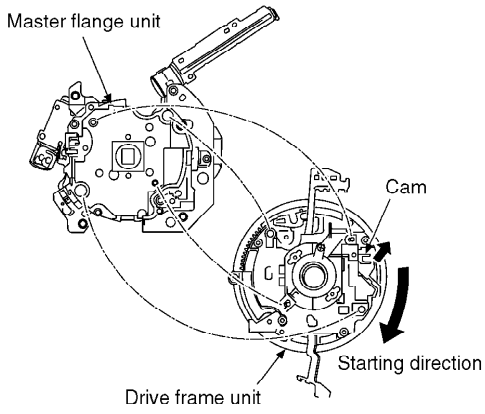

• Screw <b> × 2
• Zoom motor unit
Grease apply
(The whole of motor gear)
② Screw <b>
① Screw <b>
Starting direction
Zoom motor unit
Screw <b>
4.0mm
SILVER
Removal of the Zoom Motor Unit
1. Turn the drive frame unit with lifting up the collapsable barell motor, move the lens to starting position. Then remove 2 screws <b>.
2. Remove the zoom motor unit from fixing position.
Cam
Lens unit
NOTE: (When Intalling the Zoom motor unit)
1. Gently ware the lens to slide the cam to the arrow direction. (left of fully)
2. While holding the front lens side up, install the zoom motor with sliding.
In this case, do not shift the cam position from fully left side. Also, do not ride it onto hook Ⓐ.
Flex limited position
Zoom motor unit
Hook Ⓐ
3. Press the zoom motor unit in the direction of arrow fully, and then screw. Screw order : ①→②



NOTE: (When Installing the Focus motor unit)
Gently the lens to slide the cam to the arrow direction,
(Fully left side). Then screw them in order ① to ③.



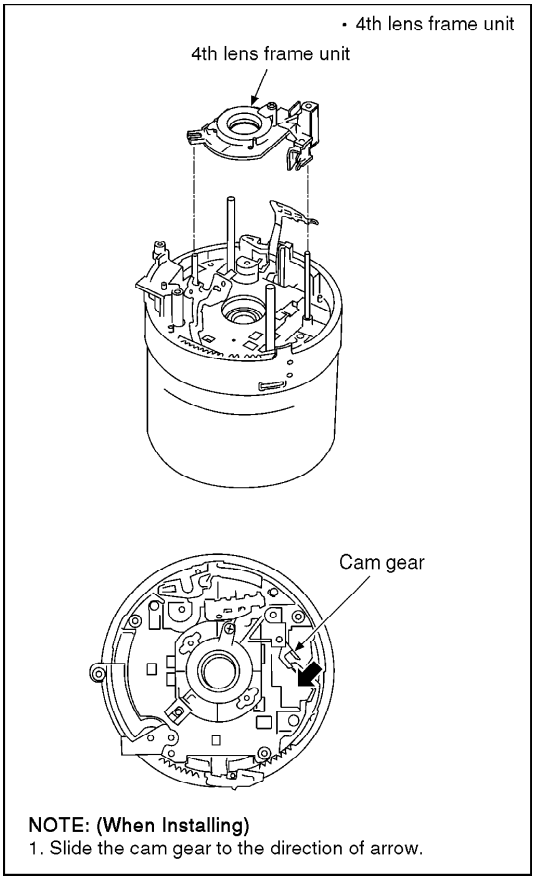
NOTE: (When Removing and Installing)
After locking the lens in order from ① to ③,
remove or install the 3 screws <d>.



※ Take care not to cut the flex C.B.A.

NOTE: (When Installing)
1. Turn the drive frame unit to right, move the lens to starting position.
2. Aligin the hole of master flange unit and guide pole.
3. Confirm the cam is positioned to end in the direction of arrow.

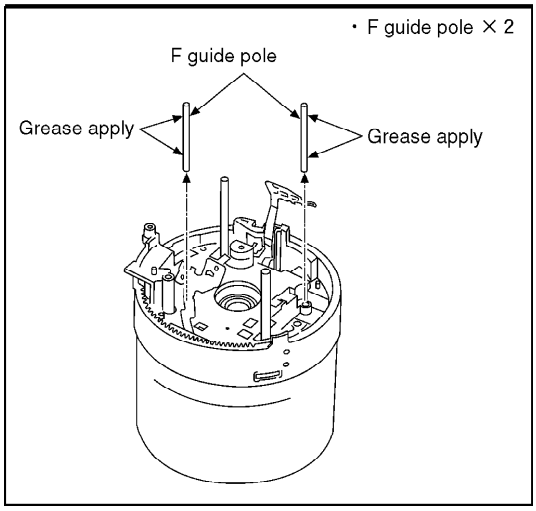
12.4.2. Removal of the 4th Frame Unit



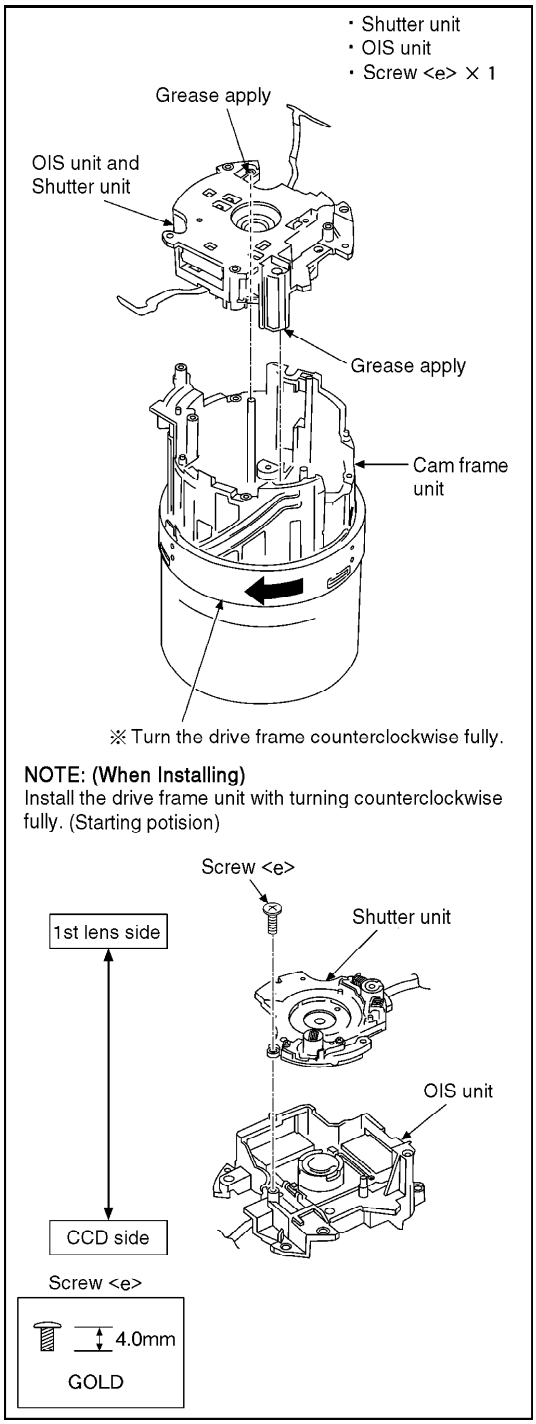
NOTE: (When Installing)
1. Slide the cam gear to the direction of arrow.

12.4.3. Removal of the F Guide Pole

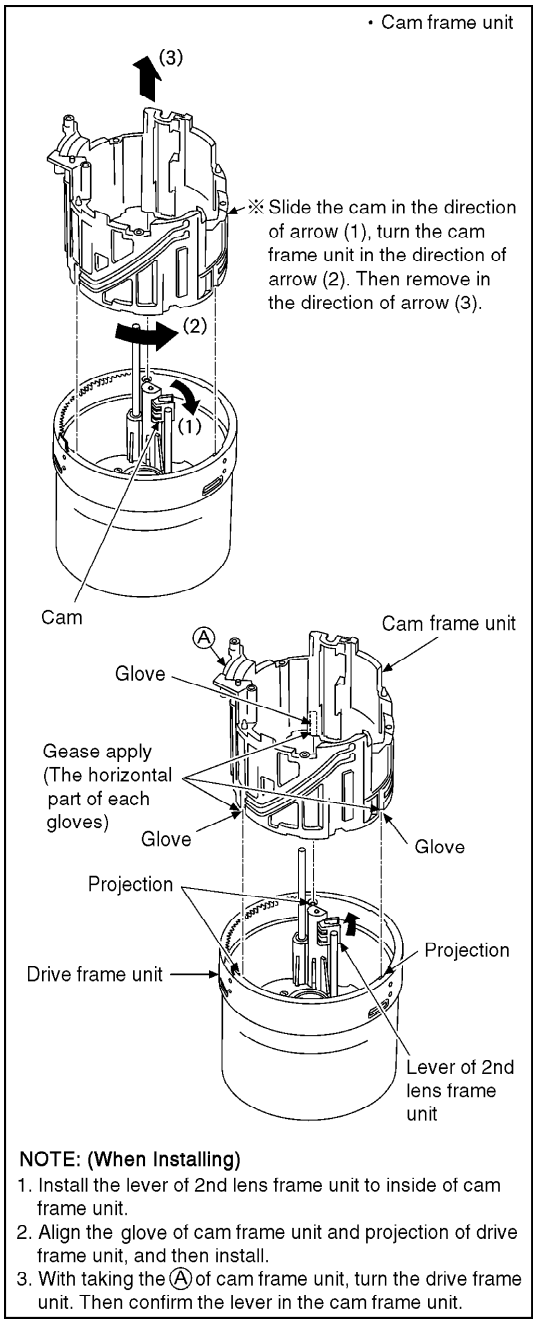
NOTE:
Do not remove F guide pole except for replacing.



12.4.4. Removal of the OIS Unit and Shutter Unit



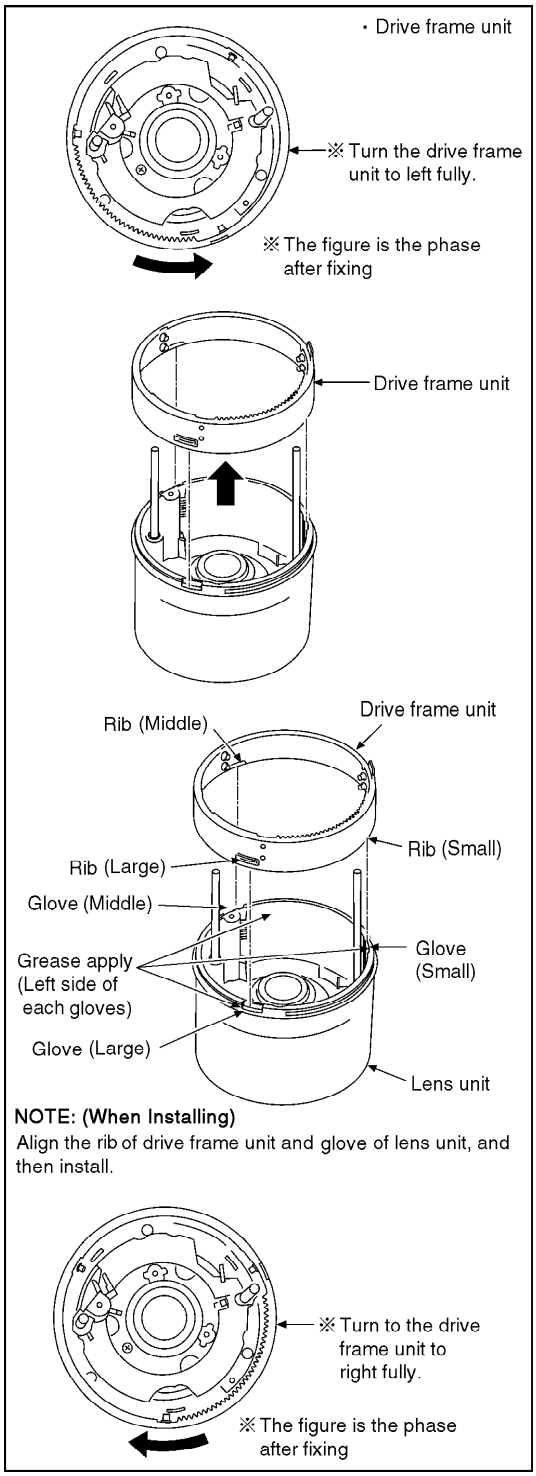
12.4.5. Removal of the Cam Frame Unit



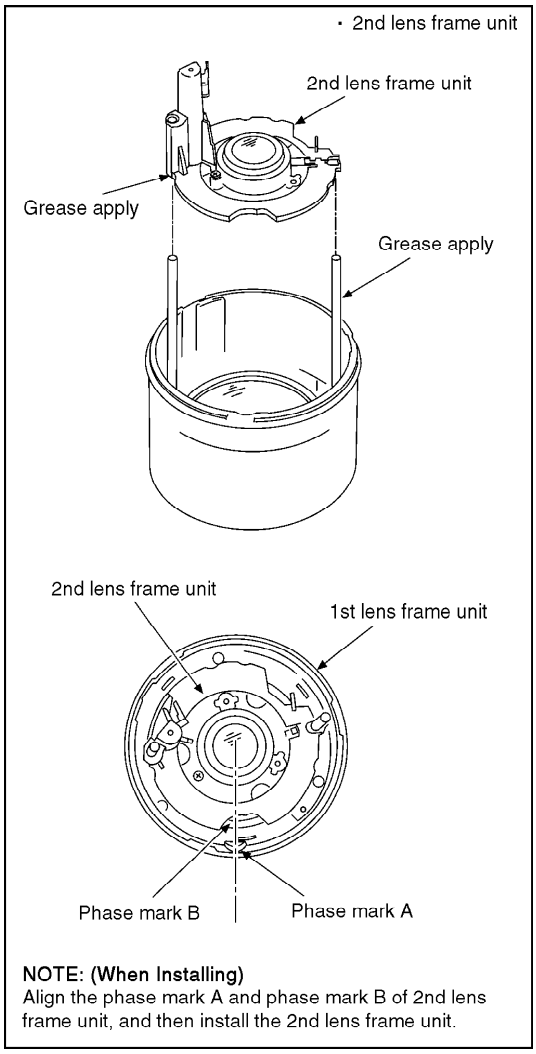
NOTE: (When Installing)

1. Install the lever of 2nd lens frame unit to inside of cam frame unit.
2. Align the glove of cam frame unit and projection of drive frame unit, and then install.
3. With taking the Ⓐ of cam frame unit, turn the drive frame unit. Then confirm the lever in the cam frame unit.

12.4.6. Removal of the Drive Frame Unit


· Drive frame unit
※ Turn the drive frame unit to left fully.
※ The figure is the phase after fixing
Drive frame unit
Drive frame unit
Rib (Middle)
Rib (Small)
Rib (Large)
Glove (Middle)
Glove (Small)
Grease apply (Left side of each gloves)
Glove (Large)
Lens unit
NOTE: (When Installing)
Align the rib of drive frame unit and glove of lens unit, and then install.
※ Turn to the drive frame unit to right fully.
※ The figure is the phase after fixing

12.4.7. Removal of the 2nd Lens Frame Unit



NOTE: (When Installing)
Align the phase mark A and phase mark B of 2nd lens frame unit, and then install the 2nd lens frame unit.

13. SCHEMATIC DIAGRAMS

13.1. OVER ALL BLOCK DIAGRAM

13.2. WIRING CONNECTION DIAGRAM

13.3. SIDE OPERATION SCHEMATIC DIAGRAM

13.4. SD CARD SCHEMATIC DIAGRAM

13.5. CCD SCHEMATIC DIAGRAM

13.6. TOP OPERATION SCHEMATIC DIAGRAM

13.7. REAR OPERATION SCHEMATIC DIAGRAM

13.8. LENS FLEX SCHEMATIC DIAGRAM

14. CIRCUIT BOARD ASSEMBLIES

14.1. SD CARD C.B.A.

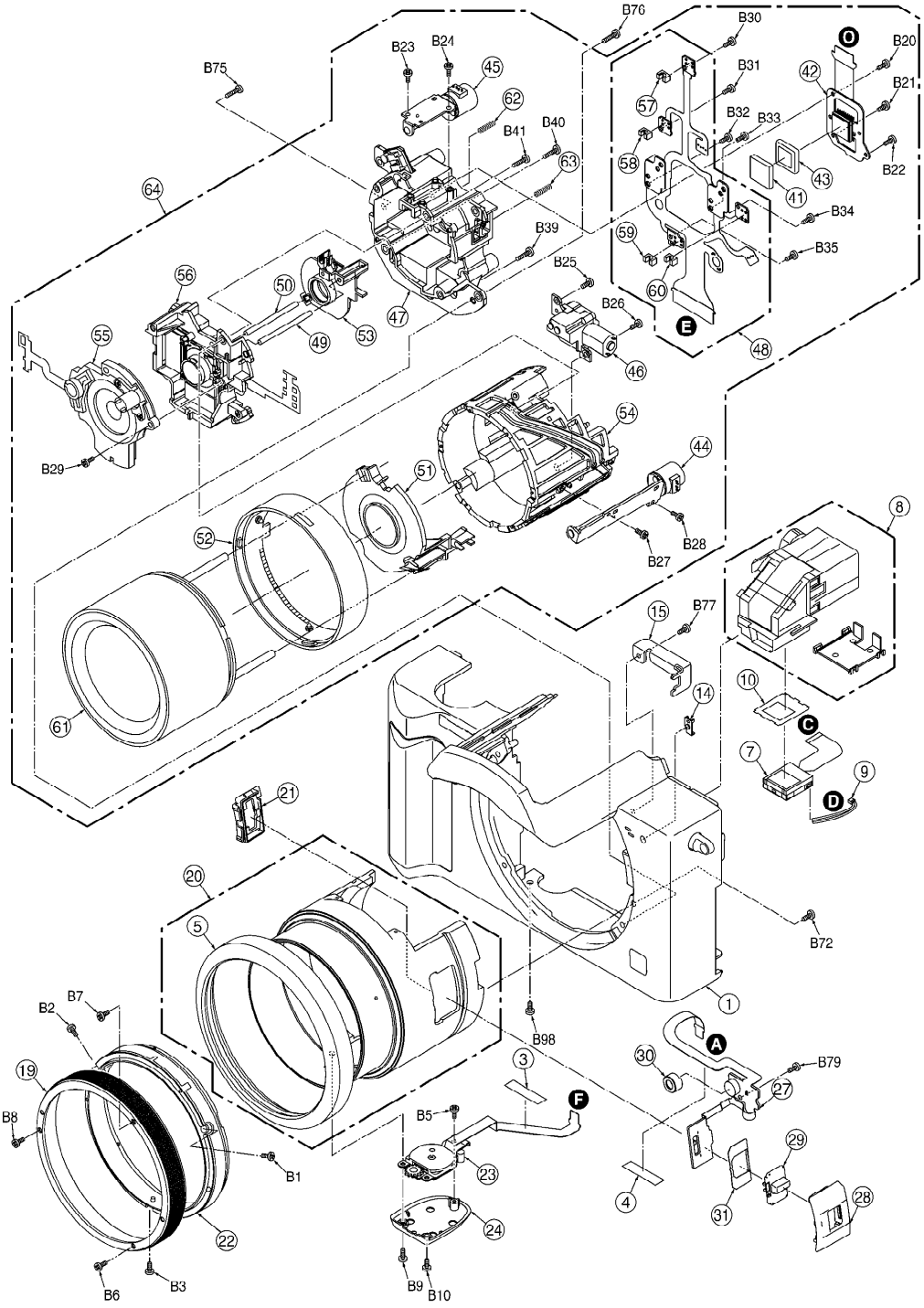
14.2. CCD C.B.A.

14.3. SIDE OPERATION C.B.A.

14.4. LENS FLEX C.B.A.

15. EXPLODED VIEWS

15.1. FRAME & CASING SECTION


B76
B30
B20
B75
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B33
B40
B41
B22
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B39
B25
B35
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B79
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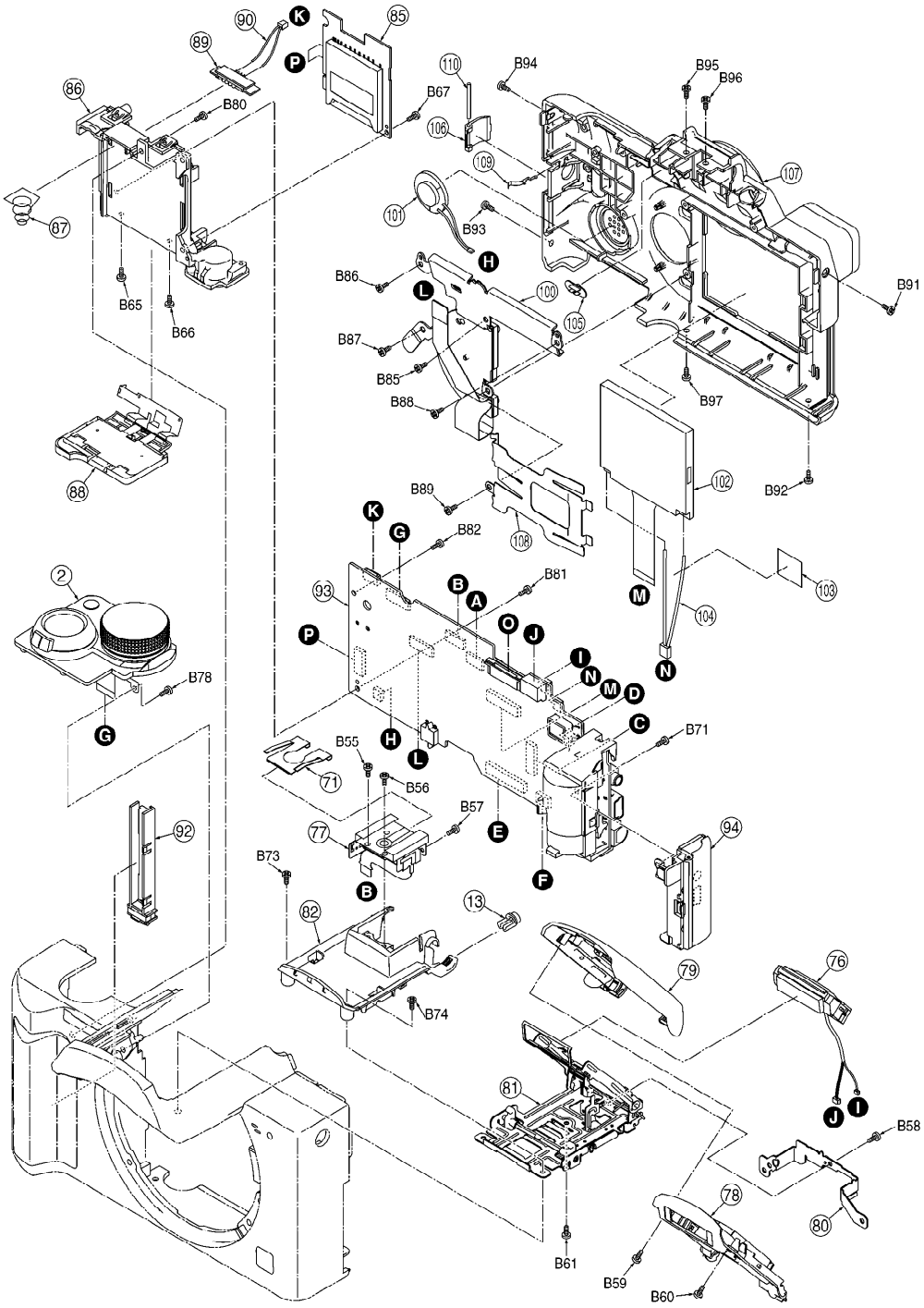
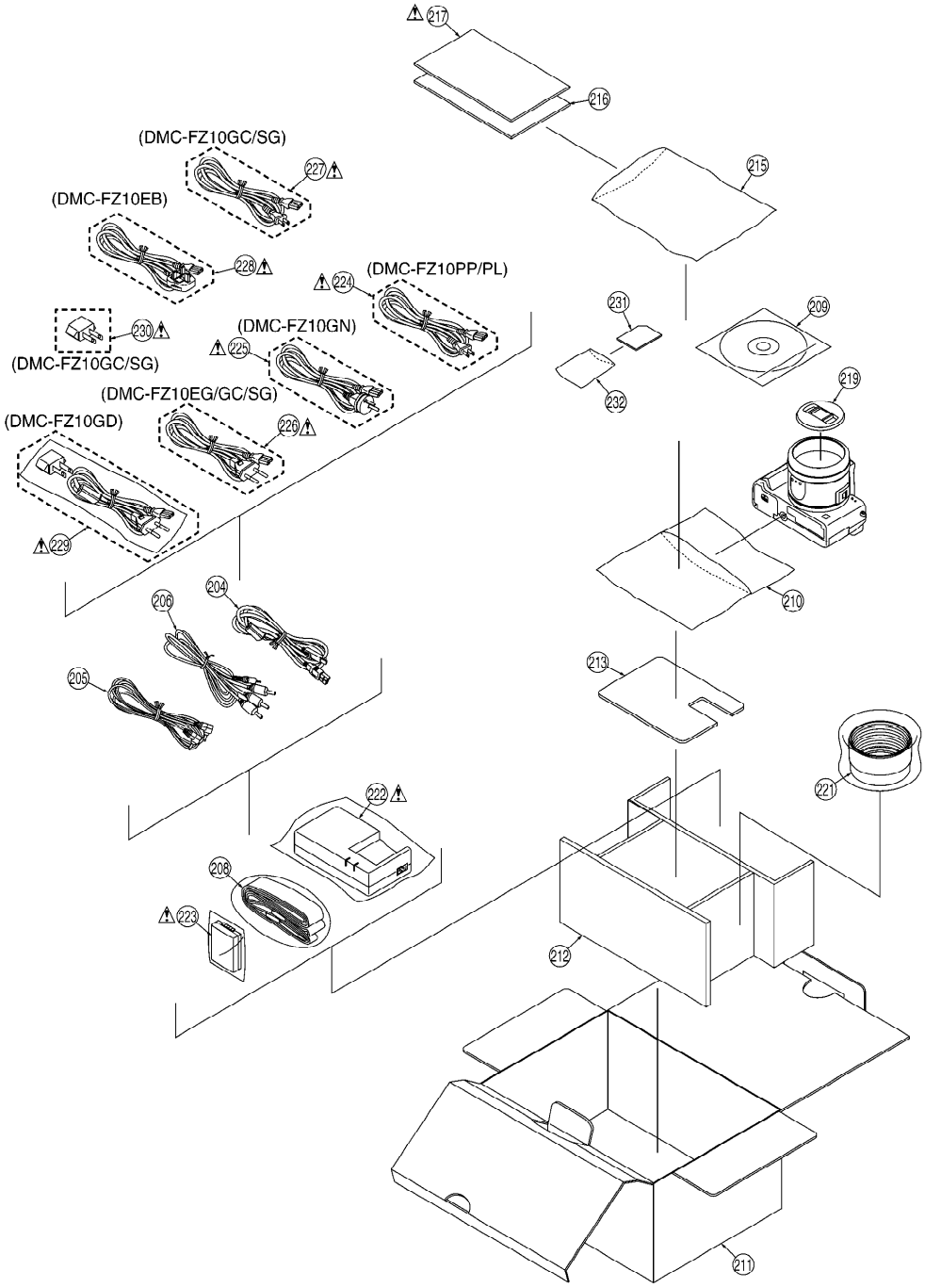
B1
B6
B3
B9
B10



15.2. PACKING PARTS & ACCESSORIES SECTION



16. REPLACEMENT PARTS LIST

16.1. MECHANICAL REPLACEMENT PARTS LIST

Note: 1.* Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE
Components identified with the mark ⚠ have the special characteristics for safety.
When replacing any of these components, use only the same type.
3. The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

16.1.1. FRAME & CASING SECTION PARTS LIST

Definition of Parts supplier:

1. Parts marked with [AVC-SPC] in the remarks column are supplied from AVC CONPANY CS (AVC-SPC). Others are supplied from MKE SAIJYO (MKE).

Ref. No.	Part No.	Part Name & Description	Remarks
1	VYK0W88	FRONT CASE UNIT	SILVER
1	VYK0Z11	FRONT CASE UNIT	BLACK
2	K0RB01200002	TOP OPERATION	SILVER
2	K0RB01200003	TOP OPERATION	BLACK
3	LSMF0048	TAPE	
4	LSMF0048	TAPE	
5	VDW0950	LENS RING FRONT	[AVC-SPC] / SILVER
5	VDW0967	LENS RING FRONT	[AVC-SPC] / BLACK
7	L5EDDXH00017	EVF LCD MODULE	
8	VYQ2531	ELECTRONIC VIEWFINDER / UNIT	SILVER
8	VYQ2576	ELECTRONIC VIEWFINDER / UNIT	BLACK
9	VEE0W84	EVF BL CONNECTOR UNIT	
10	VGQ7101	LCD MASK	
13	VGU9455	FLASH LOCK BUTTON	SILVER
13	VGU9501	FLASH LOCK BUTTON	BLACK
14	VKW3087	SELFTIMER LED PANEL	
15	VMA0S05	STRAP PLATE R	
19	VDW0951	MF RING	SILVER
19	VDW0966	MF RING	BLACK
20	VYK1E10	LENS RING BASE	SILVER
20	VYK1E11	LENS RING BASE	BLACK
21	VGQ7508	SIDE OPERATION HOLDER	
22	VXF0185	MF RING UNIT	
23	N9ZZ00000251	ENCODER UNIT	
24	VGP5971	ENCODER COVER	SILVER
24	VGP5992	ENCODER COVER	BLACK
27	VEP59001A	SIDE OPERATION HOLDER / C.B.A.	
28	VGP5972	SIDE OPERATION COVER	SILVER
28	VGP5993	SIDE OPERATION COVER	BLACK
29	VGU9454	AF/MF KNOB	SILVER
29	VGU9502	AF/MF KNOB	BLACK
30	VMT1289	MICROPHONE DAMPER	
31	VMC1903	SIDE OPERATION SPRING	
41	VDL1534	OPTICAL FILTER	[AVC-SPC]
42	VEK0E17	CCD C.B.A.	[AVC-SPC]
43	VMX3352	CUSHION RUBBER	[AVC-SPC]
44	10S1F10F6NJ	ZOOM MOTOR UNIT	[AVC-SPC]
45	10S1F10F7NJ	FOCUS MOTOR UNIT	[AVC-SPC]
46	L6DA8BHB0002	COLLAPSABLE BARREL MOTOR	[AVC-SPC]
47	VDW0961	MASTER FLANGE	[AVC-SPC]
48	VEK0D70	LENS FLEX UNIT	[AVC-SPC]
49	VMS7434	F GUIDE POLE	[AVC-SPC]
50	VMS7434	F GUIDE POLE	[AVC-SPC]
51	VXP2295	2ND LENS FRAME UNIT	[AVC-SPC]

Ref. No.	Part No.	Part Name & Description	Remarks
52	VXP2297	DRIVE FRAME UNIT	[AVC-SPC]
53	VXP2301	4TH LENS FRAME UNIT	[AVC-SPC]
54	VXQ1180	CAM FRAME UNIT	[AVC-SPC]
55	L9ZZ00000202	SHUTTER UNIT	[AVC-SPC]
56	VXQ1182	OIS UNIT	[AVC-SPC]
57	B3NAA0000074	PHOTO SENSOR	[AVC-SPC]
58	B3NAA0000074	PHOTO SENSOR	[AVC-SPC]
59	B3NAA0000074	PHOTO SENSOR	[AVC-SPC]
60	B3NAA0000074	PHOTO SENSOR	[AVC-SPC]
61	VXQ1236	1ST LENS FRAME UNIT	[AVC-SPC] / SILVER
61	VXQ1237	1ST LENS FRAME UNIT	[AVC-SPC] / BLACK
62	VMB3683	CCD SPRING	[AVC-SPC]
63	VMB3683	CCD SPRING	[AVC-SPC]
64	VXW0628	LENS UNIT	[AVC-SPC] / SILVER
64	VXW0650	LENS UNIT	[AVC-SPC] / BLACK
71	VMC1752	SHOE SPRING	SILVER
71	VMC1768	SHOE SPRING	BLACK
76	A4YZ00000008	FLASH UNIT	
77	VEK0E94KIT	HOT SHOE UNIT	[AVC-SPC] / SILVER
77	VEK0E95KIT	HOT SHOE UNIT	[AVC-SPC] / BLACK
78	VKM6215	FLASH BOTTOM COVER	SILVER
78	VKM6289	FLASH BOTTOM COVER	BLACK
79	VKM6216	FLASH TOP COVER	SILVER
79	VKM6290	FLASH TOP COVER	BLACK
80	VMA0R53	FLASH PLATE,STEEL	
81	VXF0186	TOP BASE UNIT	SILVER
81	VXF0191	TOP BASE UNIT	BLACK
82	VXF0192	TOP CASE UNIT	SILVER
82	VXF0193	TOP CASE UNIT	BLACK
85	VEP56002A	SD CADE FLEX C.B.A.	
86	VGQ7582	BATTERY CATCHER HOLDER	SILVER
86	VGQ7583	BATTERY CATCHER HOLDER	BLACK
87	VMB3820	CATCHER SPRING	
88	VYF2938	BATTERY COVER UNIT	SILVER
88	VYF2947	BATTERY COVER UNIT	BLACK
89	K1ZZ00001260	BATTERY CATCHER	
90	VEE0W82	BATTERY CATCHER CONNECTOR / UNIT	
92	VYQ2569	BATTERY LOCK UNIT	
93	VEP56009A	MAIN C.B.A.	
94	VYQ2800	JACK DOOR UNIT	SILVER
94	VYQ2826	JACK DOOR UNIT	BLACK
100	K0RB01100002	REAR OPERATION	SILVER
100	K0RB01100003	REAR OPERATION	BLACK
101	L0AA01A00004	SPEAKER	
102	L5EDDYH00002	LCD MODULE	
103	LSMF0225	NONFABRIC TAPE	
104	VEE0Y97	LCD BL CONNECTOR UNIT	
105	VGU9460	POWER KNOB	SILVER
105	VGU9504	POWER KNOB	BLACK
106	VKF3788	DC JACK COVER	SILVER
106	VKF3814	DC JACK COVER	BLACK
107	VYK1E32	REAR CASE UNIT	SILVER
107	VYK1E33	REAR CASE UNIT	BLACK
108	VMA0R54	LCD HOLDER	

Ref. No.	Part No.	Part Name & Description	Remarks
109	VMC1818	DC JACK SPRING	SILVER
109	VMC1847	DC JACK SPRING	BLACK
110	VMS7201	DC JACK SHAFT	
B1	VHD1652	SCREW,STEEL	
B2	VHD1652	SCREW,STEEL	
B3	VHD1652	SCREW,STEEL	
B5	XQN16+BJ4FN	SCREW,STEEL	SILVER
B5	XQN16+BJ4FZ	SCREW,STEEL	BLACK
B6	XQN14+AJ4FN	SCREW,STEEL	SILVER
B6	XQN14+AJ4FZ	SCREW,STEEL	BLACK
B7	XQN14+AJ4FN	SCREW,STEEL	SILVER
B7	XQN14+AJ4FZ	SCREW,STEEL	BLACK
B8	XQN14+AJ4FN	SCREW,STEEL	SILVER
B8	XQN14+AJ4FZ	SCREW,STEEL	BLACK
B9	XQN16+B4FN	SCREW,STEEL	SILVER
B9	XQN16+B4FZ	SCREW,STEEL	BLACK
B10	XQN16+B4FN	SCREW,STEEL	SILVER
B10	XQN16+B4FZ	SCREW,STEEL	BLACK
B20	VHD1547	SCREW,STEEL	[AVC-SPC]
B21	VHD1547	SCREW,STEEL	[AVC-SPC]
B22	VHD1547	SCREW,STEEL	[AVC-SPC]
B23	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B24	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B25	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B26	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B27	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B28	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B29	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B30	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B31	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B32	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B33	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B34	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B35	XQN16+CJ4	SCREW,STEEL	[AVC-SPC]
B39	XQN16+CJ8	SCREW,STEEL	[AVC-SPC]
B40	XQN16+CJ8	SCREW,STEEL	[AVC-SPC]
B41	XQN16+CJ8	SCREW,STEEL	[AVC-SPC]
B55	XQN16+B4FN	SCREW,STEEL	
B56	XQN16+B4FN	SCREW,STEEL	
B57	XQN16+B4FN	SCREW,STEEL	
B58	XQN16+B4FN	SCREW,STEEL	
B59	XQN16+BJ3FN	SCREW,STEEL	SILVER
B59	XQN16+BJ3FZ	SCREW,STEEL	BLACK
B60	XQN16+BJ3FN	SCREW,STEEL	SILVER
B60	XQN16+BJ3FZ	SCREW,STEEL	BLACK
B61	XQN16+BJ4FN	SCREW,STEEL	SILVER
B61	XQN16+BJ4FZ	SCREW,STEEL	BLACK
B65	XQN16+B3FN	SCREW,STEEL	SILVER
B65	XQN16+B3FZ	SCREW,STEEL	BLACK
B66	XQN16+B3FN	SCREW,STEEL	SILVER
B66	XQN16+B3FZ	SCREW,STEEL	BLACK
B67	XQN16+BJ4FN	SCREW,STEEL	
B71	XQN16+B4FN	SCREW,STEEL	
B72	XQN16+B4FN	SCREW,STEEL	

Ref. No.	Part No.	Part Name & Description	Remarks
B73	XQN16+B4FN	SCREW,STEEL	SILVER
B73	XQN16+B4FZ	SCREW,STEEL	BLACK
B74	XQN16+B4FN	SCREW,STEEL	SILVER
B74	XQN16+B4FZ	SCREW,STEEL	BLACK
B75	XQN16+B8FN	SCREW,STEEL	
B76	XQN16+B8FN	SCREW,STEEL	
B77	XQN16+B8FN	SCREW,STEEL	
B78	XQN16+B8FN	SCREW,STEEL	
B79	XQN16+BJ4FN	SCREW,STEEL	
B80	XQN16+BJ4FN	SCREW,STEEL	
B81	XQN16+BJ4FN	SCREW,STEEL	
B82	XQN16+BJ4FN	SCREW,STEEL	
B85	XQN16+BJ4FN	SCREW,STEEL	
B86	XQN16+BJ4FN	SCREW,STEEL	
B87	XQN16+BJ4FN	SCREW,STEEL	
B88	XQN16+BJ4FN	SCREW,STEEL	
B89	XQN16+BJ4FN	SCREW,STEEL	
B91	XQN16+B4FN	SCREW,STEEL	SILVER
B91	XQN16+B4FZ	SCREW,STEEL	BLACK
B92	XQN16+B4FN	SCREW,STEEL	SILVER
B92	XQN16+B4FZ	SCREW,STEEL	BLACK
B93	XQN16+B4FN	SCREW,STEEL	SILVER
B93	XQN16+B4FZ	SCREW,STEEL	BLACK
B94	XQN16+B4FN	SCREW,STEEL	SILVER
B94	XQN16+B4FZ	SCREW,STEEL	BLACK
B95	XQN16+B4FN	SCREW,STEEL	SILVER
B95	XQN16+B4FZ	SCREW,STEEL	BLACK
B96	XQN16+B4FN	SCREW,STEEL	SILVER
B96	XQN16+B4FZ	SCREW,STEEL	BLACK
B97	XQN16+BJ5FN	SCREW,STEEL	SILVER
B97	XQN16+BJ5FZ	SCREW,STEEL	BLACK
B98	XQN16+BJ5FN	SCREW,STEEL	SILVER
B98	XQN16+BJ5FZ	SCREW,STEEL	BLACK

16.1.2. PACKING PARTS & ACCESSORIES SECTION PARTS LIST

Definition of Model & Marks:
Be sure to specifying the parts by referring the following the “COMPARISON CHART OF MODEL & MARKS”.

COMPARISON CHART OF MODELS & MARKS

MODEL	MARK
DMC-FZ10PP-S	A
DMC-FZ10PP-K	B
DMC-FZ10PL-S	C
DMC-FZ10PL-K	D
DMC-FZ10GC-S	E
DMC-FZ10GC-K	F
DMC-FZ10EB-S	G
DMC-FZ10EB-K	H
DMC-FZ10EG-S	I
DMC-FZ10EG-K	J
DMC-FZ10GN-S	K
DMC-FZ10GN-K	L
DMC-FZ10SG-S	M
DMC-FZ10SG-K	N
DMC-FZ10GD-S	O
DMC-FZ10GD-K	P

Definition of Parts supplier:

1. Parts marked with [AVC-SPC] in the remarks column are supplied from AVC CONPANY CS (AVC-SPC). Others are supplied from MKE SAIJYO (MKE).

Ref. No.	Part No.	Part Name & Description	Remarks
204	K1HA05CD0004	USB CABLE W/PLUG	[AVC-SPC]
205	K2GH2DB00003	DC CABLE W/PLUG	[AVC-SPC]
206	K1V204C10001	AV CABLE W/PLUG	[AVC-SPC]
208	VFC4036	STRAP	
209	VFF0183-S	CD-ROM	[AVC-SPC] / (A,B)
209	VFF0184-S	CD-ROM	[AVC-SPC] / (C,D,E,F,G, / H,I,J,K,L,M, / N,O,P)
210	VPF1193	CAMERA BAG,POLYETHYLENE	
211	VPK2775	PACKING CASE,PAPER	(A)
211	VPK2772	PACKING CASE,PAPER	(B)
211	VPK2776	PACKING CASE,PAPER	(C,E,G,I,K, / M,O)
211	VPK2773	PACKING CASE,PAPER	(D,F,H,J,L, / N,P)
212	VPN6102	CUSHION	
213	VPN6120	BOTTOM PAD	
215	VPF1100	BAG,POLYETHYLENE	[AVC-SPC] / (A,B,C,D,G, / H,K,L,O,P)
215	VPF1132	BAG,POLYETHYLENE	[AVC-SPC] / (E,F,I,J,M, / N)
216	VQT0B01	INSTRUCTION BOOK/ / APPLICATION (ENGLISH)	[AVC-SPC] / (A,B)
216	VQT0B05	INSTRUCTION BOOK/ / APPLICATION (ENGLISH/ / SPANISH/PORTUGUESE)	[AVC-SPC] / (C,D)
216	VQT0B11	INSTRUCTION BOOK/ / APPLICATION / (CHINESE(SIMPLIFIED))	[AVC-SPC] / (E,F,M,N)
216	VQT0C98	INSTRUCTION BOOK/ / APPLICATION (ENGLISH/ / CHINESE(TRADITIONAL))	[AVC-SPC] / (E,F,M,N)
216	VQT0C99	INSTRUCTION BOOK/ / APPLICATION / (ARABIC/ RUSSIAN)	[AVC-SPC] / (E,F,M,N)
216	VQT0B14	INSTRUCTION BOOK/ / APPLICATION (ENGLISH)	[AVC-SPC] / (G,H)
216	VQT0C94	INSTRUCTION BOOK/ / APPLICATION / (GERMAN/ FRENCH)	[AVC-SPC] / (I,J)
216	VQT0C95	INSTRUCTION BOOK/ / APPLICATION / (SPANISH/ ITALIAN)	[AVC-SPC] / (I,J)
216	VQT0C96	INSTRUCTION BOOK/ / APPLICATION / (DUTCH/ PORTUGESESE)	[AVC-SPC] / (I,J)
216	VQT0C97	INSTRUCTION BOOK/ / APPLICATION / (SWEDISH/ DANISH)	[AVC-SPC] / (I,J)
216	VQT0B51	INSTRUCTION BOOK/ / APPLICATION (ENGLISH)	[AVC-SPC] / (K,L)
216	VQT0B53	INSTRUCTION BOOK/ / APPLICATION (KOREAN)	[AVC-SPC] / (O,P)
217	VQT0F85	INSTRUCTION BOOK / (ENGLISH)	⚠ / [AVC-SPC] / (A,B)
217	VQT0F86	INSTRUCTION BOOK / (FRENCH)	⚠ / [AVC-SPC] / (A,B)
217	VQT0F87	INSTRUCTION BOOK / (ENGLISH)	⚠ / [AVC-SPC] / (C,D)
217	VQT0F88	INSTRUCTION BOOK / (SPANISH)	⚠ / [AVC-SPC] / (C,D)
217	VQT0F89	INSTRUCTION BOOK / (PORTUGUESE)	⚠ / [AVC-SPC] / (C,D)
217	VQT0F90	INSTRUCTION BOOK / (ENGLISH)	⚠ / [AVC-SPC] / (E,F,M,N)
217	VQT0F91	INSTRUCTION BOOK / (TRADITIONAL CHINESE)	⚠ / [AVC-SPC] / (E,F,M,N)
217	VQT0F92	INSTRUCTION BOOK / (SIMPLIFIED CHINESE)	⚠ / [AVC-SPC] / (E,F,M,N)
217	VQT0F93	INSTRUCTION BOOK (ARABIC)	⚠ / [AVC-SPC] / (E,F,M,N)
217	VQT0F94	INSTRUCTION BOOK / (RUSSIAN)	⚠ / [AVC-SPC] / (E,F,M,N)
217	VQT0G03	INSTRUCTION BOOK / (ENGLISH)	⚠ / [AVC-SPC] / (G,H)
217	VQT0F95	INSTRUCTION BOOK / (SPANISH)	⚠ / [AVC-SPC] / (I,J)
217	VQT0F96	INSTRUCTION BOOK / (PORTUGUESE)	⚠ / [AVC-SPC] / (I,J)
217	VQT0G02	INSTRUCTION BOOK / (GERMAN)	⚠ / [AVC-SPC] / (I,J)
217	VQT0F97	INSTRUCTION BOOK / (FRENCH)	⚠ / [AVC-SPC] / (I,J)
217	VQT0F98	INSTRUCTION BOOK / (ITALIAN)	⚠ / [AVC-SPC] / (I,J)

Ref. No.	Part No.	Part Name & Description	Remarks
217	VQT0F99	INSTRUCTION BOOK (DUTCH)	⚠ / [AVC-SPC] / (I,J)
217	VQT0G00	INSTRUCTION BOOK / (SWEDISH)	⚠ / [AVC-SPC] / (I,J)
217	VQT0G01	INSTRUCTION BOOK / (DANISH)	⚠ / [AVC-SPC] / (I,J)
217	VQT0G04	INSTRUCTION BOOK / (ENGLISH)	⚠ / [AVC-SPC] / (K,L)
217	VQT0G05	INSTRUCTION BOOK / (KOREAN)	⚠ / [AVC-SPC] / (O,P)
219	VYK0W96	LENS CAP UNIT	
221	VYQ2793	LENS HOOD	(A,C,E,G,I, / K,M,O)
221	VYQ2824	LENS HOOD	(B,D,F,H,J, / L,N,P)
222	DE-928AA	AC ADAPTOR	⚠(A,B,C,D)
222	DE-928CB	AC ADAPTOR	⚠(E,F,M,N, / O,P)
222	DE-928BA	AC ADAPTOR	⚠(G,H,I,J, / K,L)
223	-------	BATTERY	⚠
224	K2CA2EA00002	AC CABLE W/PLUG	⚠(A,B,C,D)
225	K2CJ2DA00002	AC CABLE W/PLUG	⚠(K,L)
226	K2CR2DA00004	AC CABLE W/PLUG	⚠ / K2CQ2DA00002 / (E,F,I,J,M, / N)
227	K2CA2DA00030	AC CABLE W/PLUG	⚠(E,F,M,N)
228	K2CT3DA00003	AC CABLE W/PLUG	⚠(G,H)
229	K2CP2DA00001	AC CABLE W/PLUG	⚠(O,P)
230	K2DA42E00001	AC CABLE PLUG ADAPTER	⚠(E,F,M,N)
231	RP-SD016BVE0	SD CARD	
232	VPF1092	SD CARD BAG,POLYETHYLENE	[AVC-SPC]

16.1.3. SERVICE FIXTURE & TOOLS

Ref. No.	Part No.	Part Name & Description	Remarks
	VFK1582A1225	EXTENSION CABLE / / (12PIN-FFC)	[FP9003 - / /TOP / OPERATION] / [FP9002 - / / REAR / OPERATION]
	VFK1576DC202	EXTENSION CABLE / / (2PIN-CABLE)	[P9001 - / SPEAKER] / [P9003 - /LCD / BACK LIGHT] / [P9004 - / /EVF BACK / LIGHT] / [P9005 - / FLASH UNIT]
	VFK1576DSC03	EXTENSION CABLE / / (2PIN-CABLE)	[P9006 - / FLASH UNIT]
	VFK1284	EXTENSION CABLE / / (24PIN-FFC)	[FP9004 - / /LCD UNIT]
	VFK1441	EXTENSION CABLE / / (8PIN-FFC)	[FP9011 - / ENCODER / UNIT]
	VFK1282	EXTENSION CABLE / / (22PIN-FFC)	[FP9005 - / EVF FLEX]
	VFK1464	EXTENSION CABLE / / (7PIN-FFC)	[FP9007 - / SIDE / OPERATION / UNIT]
	VFK1461	EXTENSION CABLE / / (20PIN-FFC)	[FP9008 - / CCD]
	VFK1582A1025	EXTENSION CABLE / / (10PIN-FFC)	[FP9010 - / HOT SHOE / UNIT]
	VFK1582A4525	EXTENSION CABLE / / (45PIN-FFC)	[FP9001- / LENS U]
	VFK1783	EXTENSION CABLE / / (2PIN-CABLE)	[P9002 - / BATTERY / CATCHER]
	ERG5SJ102	RESISTOR FOR DISCHARGING	
	VFK1164TDVLB	LIGHT BOX	
	VFK1164TCM02	INFINITY LENS	
	VFK1164ND01	ND FILTER (ND 0.1)	
	VFK1828	COLOR CHART	
	VFK1164LBB1	COLOR TEMP.CONV.FILTER	
	VFK1829	GLEASE	

Ref. No.	Part No.	Part Name & Description	Remarks
	VFK1835	DOME TYPE MAGNIFYING / GLASS	
	VFK1700	HANARL OIL	

16.2. ELECTRICAL REPLACEMENT PARTS LIST

Note: 1. Be sure to make your orders of replacement parts according to this list.
2. IMPORTANT SAFETY NOTICE : Components identified with the mark /!\ have the special characteristics for safety. When replacing any of these components, use only the same type.
3. Unless otherwise specified.
All resistors are in OHMS , K=1,000 OHMS. All capacitors are in MICRO-FARADS(uf) , P=uuF.
4. The P.C.Board units marked width"▮"show below the main assembled parts.
5. The marking(RTL) indicates the retention time is limited for this item. After the discontinuation of this assembly in production, it will no longer be available.

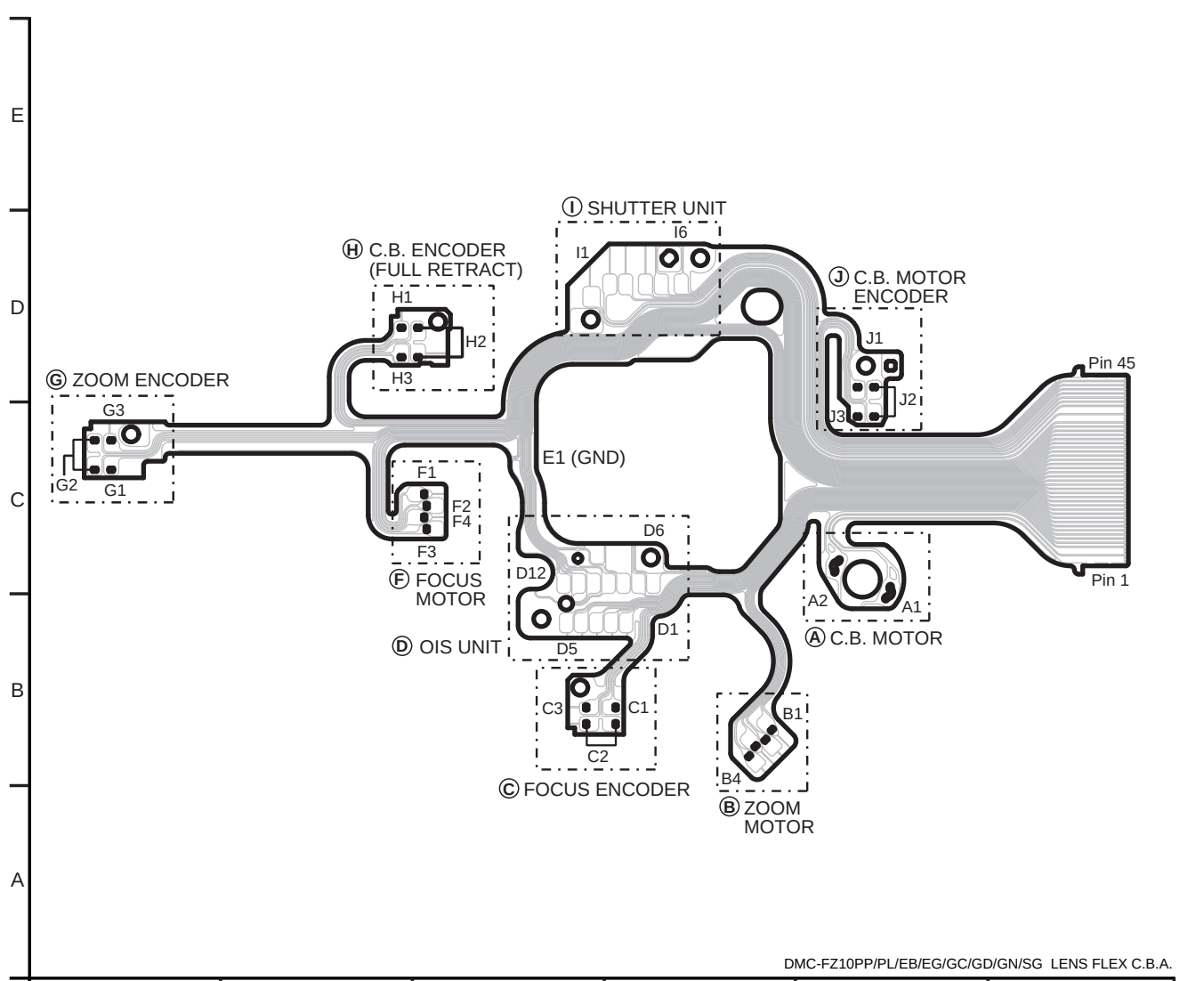
E.S.D. standerds for Electrostatically Sensitive Devices, refer to "PREVENTION OF ELECTROSTATIC DISCHARGE (ESD) TO ELECTROSTATICALLY SENSITIVE (ES) DEVICES" section.

Definition of Parts supplier:

1. Parts marked with [MBI] in the remarks column are supplied from "Matsushita Battery Industrial co., ltd." Others are supplied from MKE SAIJYO (MKE).

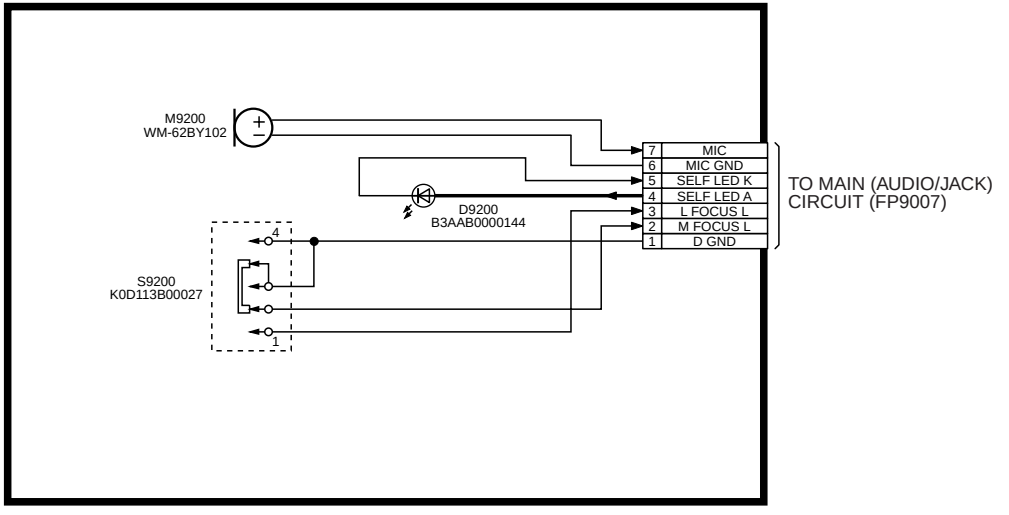
Ref. No.	Part No.	Part Name & Description	Remarks
	VEP56009A	MAIN C.B.A.	E.S.D. RTL
	VEP59001A	SIDE OPERATION HOLDER / C.B.A.	RTL
	VEP56002A	SD CARD FLEX. C.B.A.	RTL
	VEK0E17	CCD C.B.A.	RTL / [AVC-SPC]
Z9101	ML614S	BATTERY	[MBI]
	VEP56009A	MAIN C.B.A.	E.S.D. RTL
B9101	K3ZZ00500014	BATTERY HOLDER	
	VEP59001A	SIDE OPERATION HOLDER / C.B.A.	RTL
		DIODES	
D9200	B3AAB0000144	DIODE	
		SWITCHES	
S9200	K0D113B00027	SLIDE SWITCH	
		MIC	
M9200	WM-62BY102	ELECTRIC CONDENSOR / MICROPHONE UNIT	
	VEP56002A	SD CARD FLEX. C.B.A.	RTL
		PIN HEADERS	
P6401	K1NA09E00028	SD CONNECTOR	

Ref. No.	Part No.	Part Name & Description	Remarks
	VEK0E17	CCD C.B.A.	RTL / [AVC-SPC]
		CAPACITORS	
C3101	ECJ2YB1A105K	C.CAPACITOR CH 10V 1UF	[AVC-SPC]
C3103	F1K1A1060016	C.CAPACITOR CH 10V 10UF	[AVC-SPC]
		TRANSISTORS	
Q3101	2SC4627J0L	TRANSISTOR NPN	[AVC-SPC]
		RESISTORS	
R3101	ERJ2GEJ470X	M.RESISTOR CH 1/16W 47	[AVC-SPC]
R3102	ERJ2GEJ222X	M.RESISTOR CH 1/16W 2.2K	[AVC-SPC]
R3105	ERJ2GEJ330X	M.RESISTOR CH 1/16W 33	[AVC-SPC]


E
D
C
B
A
1
2
3
4
5
6
Ⓘ SHUTTER UNIT
I6
I1
Ⓗ C.B. ENCODER
(FULL RETRACT)
H1
H2
H3
Ⓙ C.B. MOTOR
ENCODER
J1
J2
J3
Pin 45
Pin 1
Ⓖ ZOOM ENCODER
G3
G2
G1
E1 (GND)
F1
F2
F4
F3
Ⓕ FOCUS
MOTOR
D6
D12
D1
D5
Ⓓ OIS UNIT
A2
A1
Ⓐ C.B. MOTOR
C3
C1
C2
Ⓒ FOCUS ENCODER
B1
B4
Ⓑ ZOOM
MOTOR

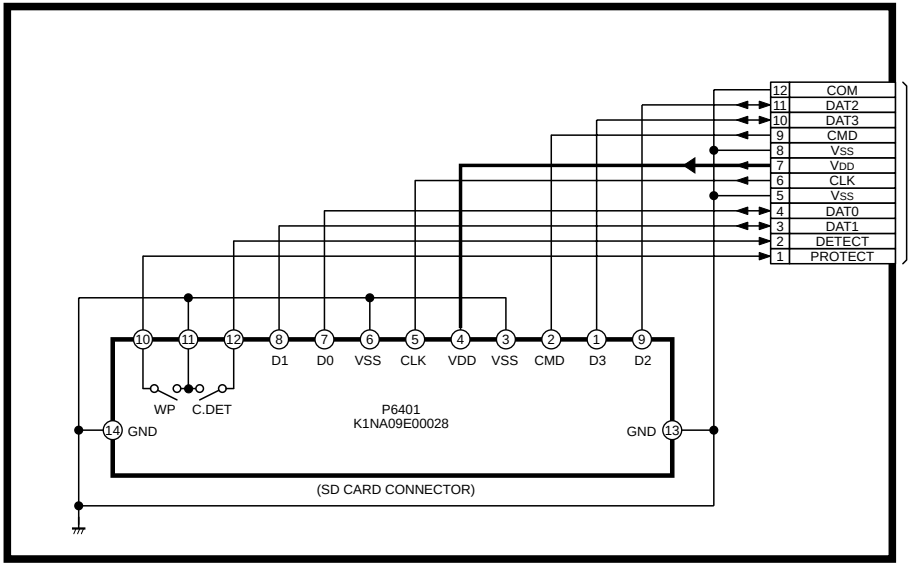
SIDE OPERATION SCHEMATIC DIAGRAM

: POSITIVE VOLTAGE LINE



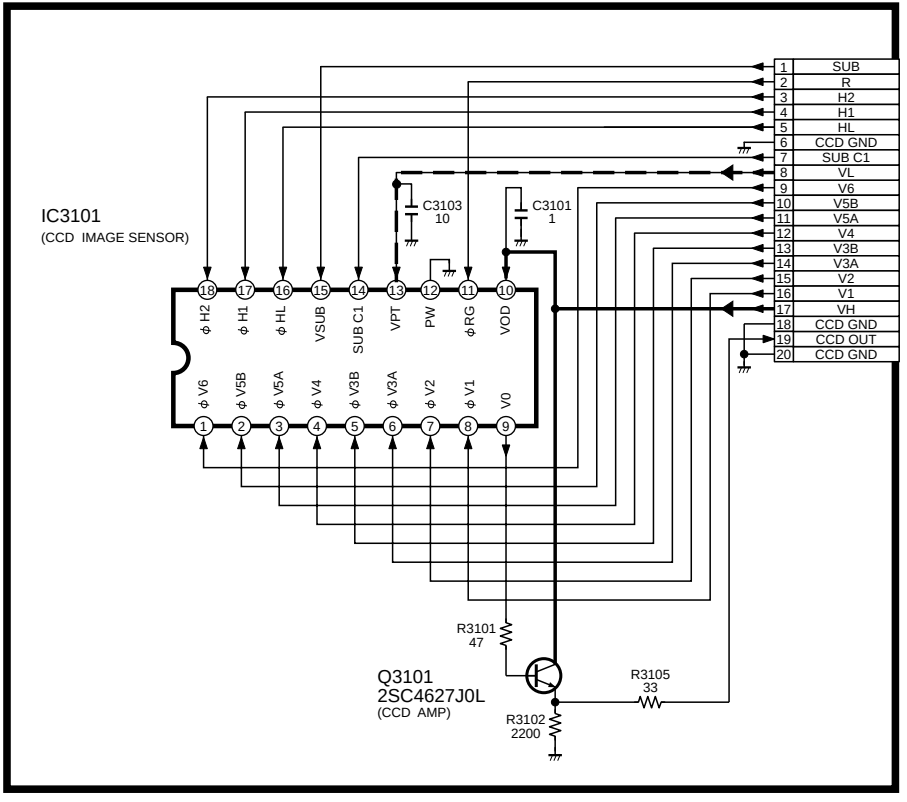
SD CARD SCHEMATIC DIAGRAM

: POSITIVE VOLTAGE LINE

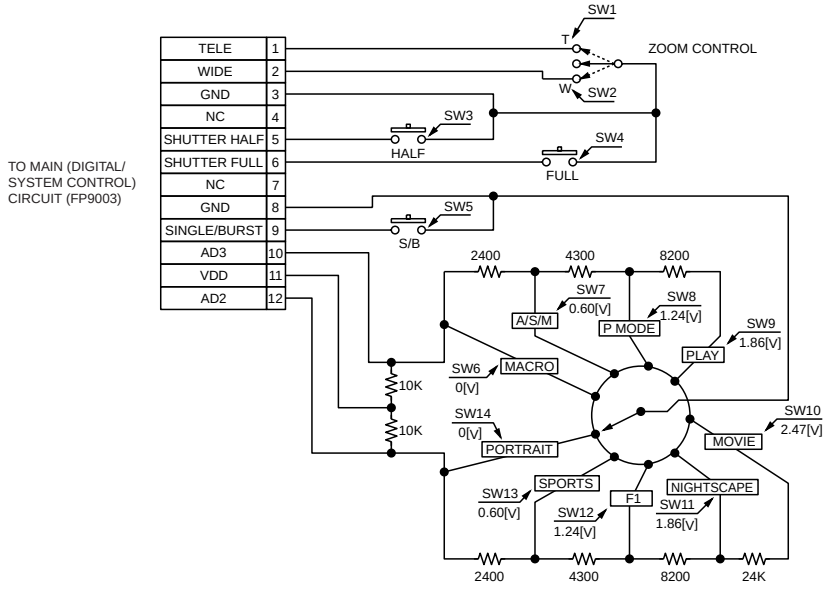


CCD SCHEMATIC DIAGRAM

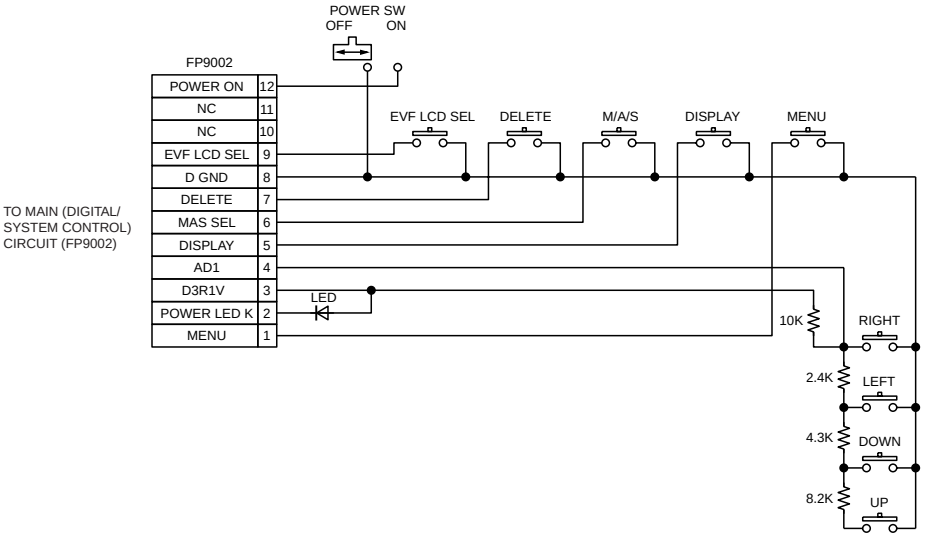
: POSITIVE VOLTAGE LINE : NEGATIVE VOLTAGE LINE



TOP OPERATION SCHEMATIC DIAGRAM

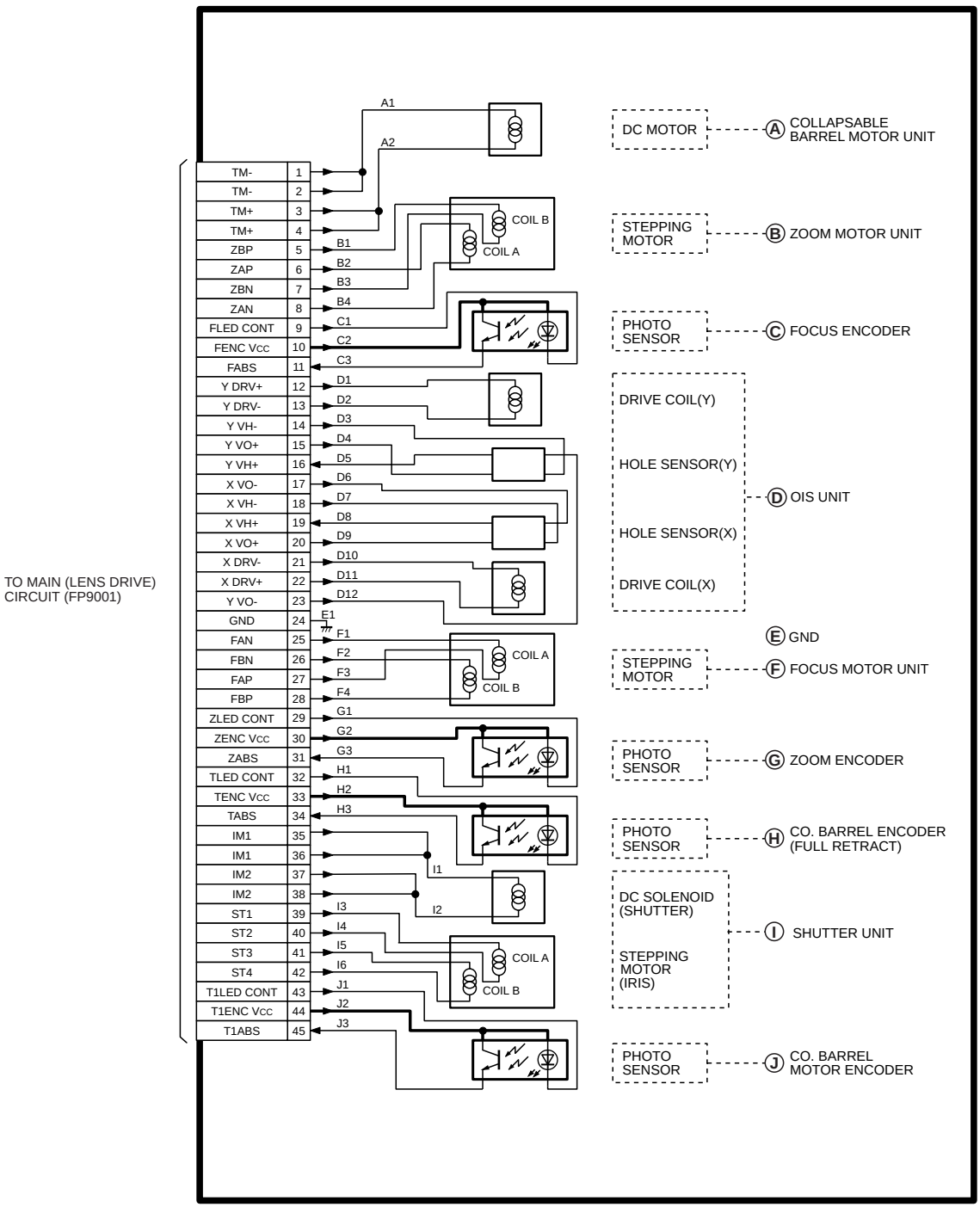


REAR OPERATION SCHEMATIC DIAGRAM

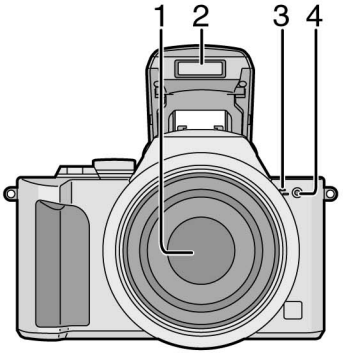


LENS FLEX SCHEMATIC DIAGRAM

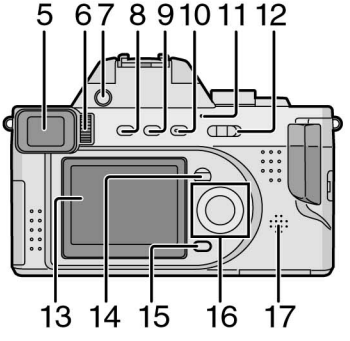
: POSITIVE VOLTAGE LINE



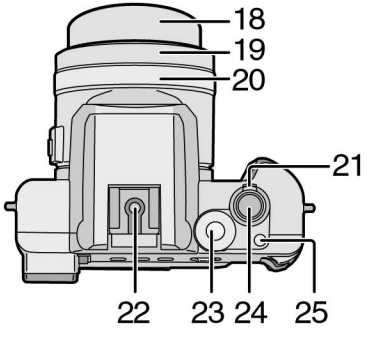
Names of the Components



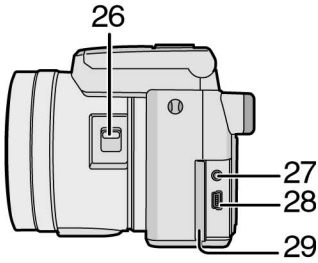
1 Lens
2 Flash
3 Microphone
4 Self-timer Indicator



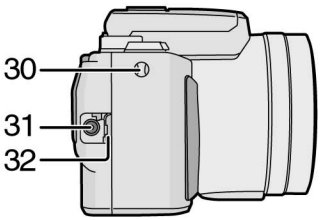
5 Viewfinder
6 Diopter Adjustment Dial
7 Flash Open Button
8 [EVF/LCD] Button
9 [DISPLAY] Button
10 [EXPOSURE] Button
11 Power Indicator
12 Camera Switch
13 LCD Monitor
14 [MENU] Button
15 Delete Button
16 Cursor buttons
◀/Self-timer Button
▼/REVIEW/SET Button
▶/Flash Mode Button
▲/Exposure Compensation / Auto Bracket /White Balance Fine Adjustment /Flash Output Adjustment Button
17 Speaker



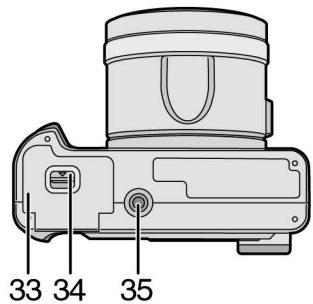
18 Lens Barrel
19 Lens Ring
20 MF Ring
21 Zoom Lever
22 Hot Shoe
23 Mode Dial
24 Shutter Button
25 Single/Burst Mode Button



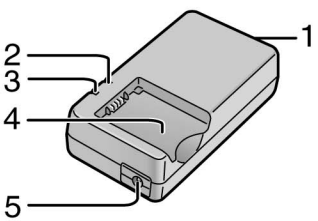
26 Focus Switch
27 [A/V OUT] Socket
28 [USB] Socket (5pin)
29 Terminal Door



30 Strap Eyelet
31 [DC IN] Socket
32 [DC IN] Terminal Door



33 Card/Battery Door
34 Card/Battery Door Open Lever
35 Tripod Receptacle

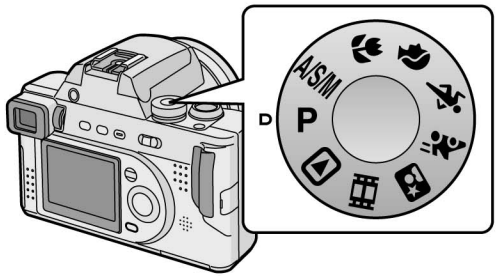


■ Battery Charger/AC Adaptor

1 [AC IN~] Terminal
2 [POWER] Indicator
3 [CHARGE] Indicator
4 Battery Attachment Part
5 [DC OUT] Terminal

The Mode Dial

Select the desired mode turning the mode dial.



P : Program AE mode
The aperture value and the shutter speed are automatically adjusted.

A/S/M : A/S/M mode

A : Aperture-priority AE
The shutter speed is adjusted automatically according to the aperture value you set.

S : Shutter-priority AE
The aperture value is adjusted automatically according to the shutter speed you set.

M : Manual exposure
The aperture value and the shutter speed are manually adjusted.

: Macro mode
This allows you to get closer to the subject up to 0.16 feet (5 cm) (Wide).

: Portrait mode
This allows you to easily achieve the depth of focus effect. The subject stands out in front of an unfocused background.

: Sports mode
This allows you to record still action pictures of outdoor sports easily.

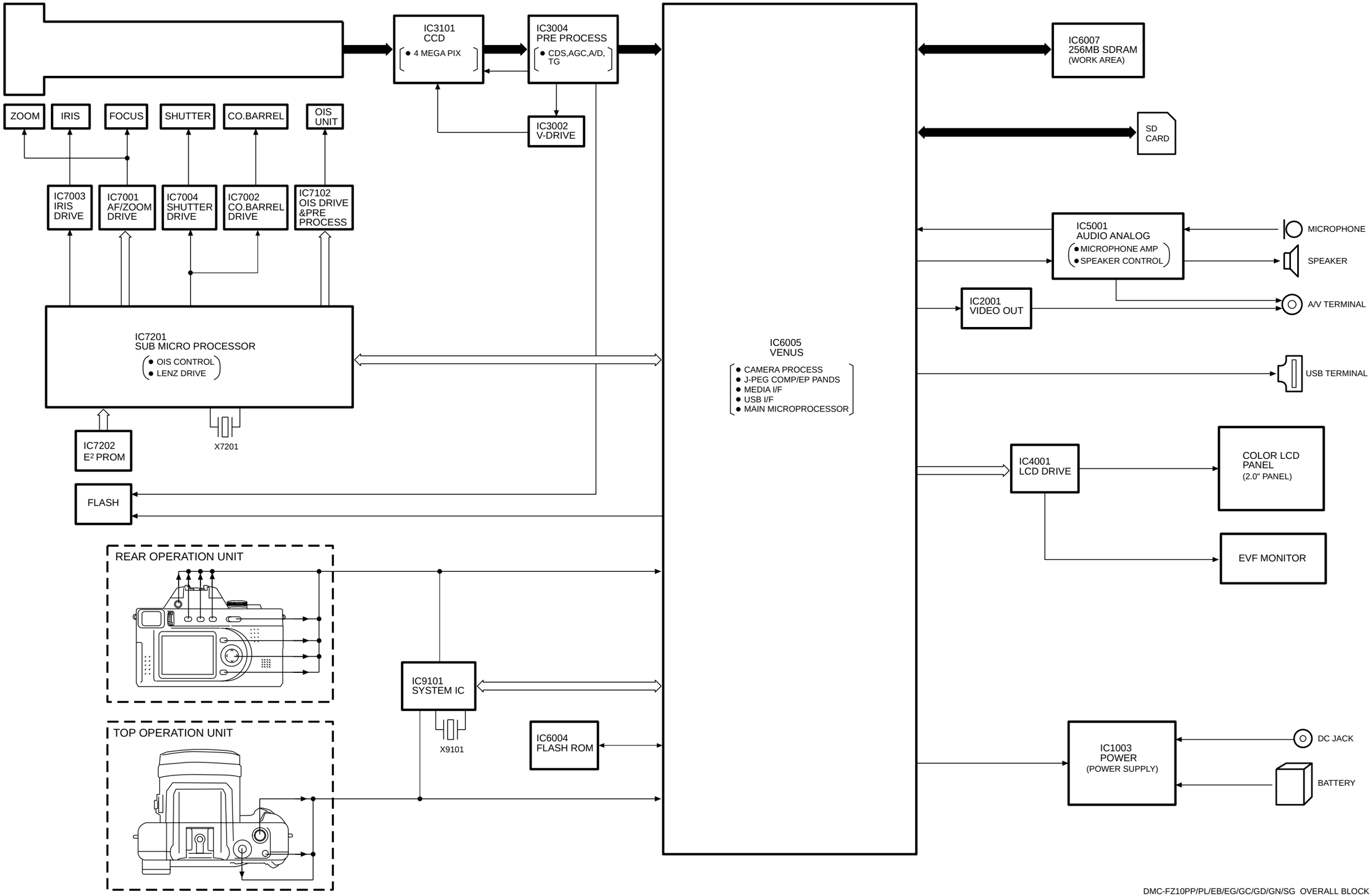
: Panning mode
This allows you to record a subject in motion sharply while blurring the background.

: Night portrait mode
This allows you to record the subject clearly in front of beautiful night illumination scenery.

: Motion image mode
This allows you to record motion images.

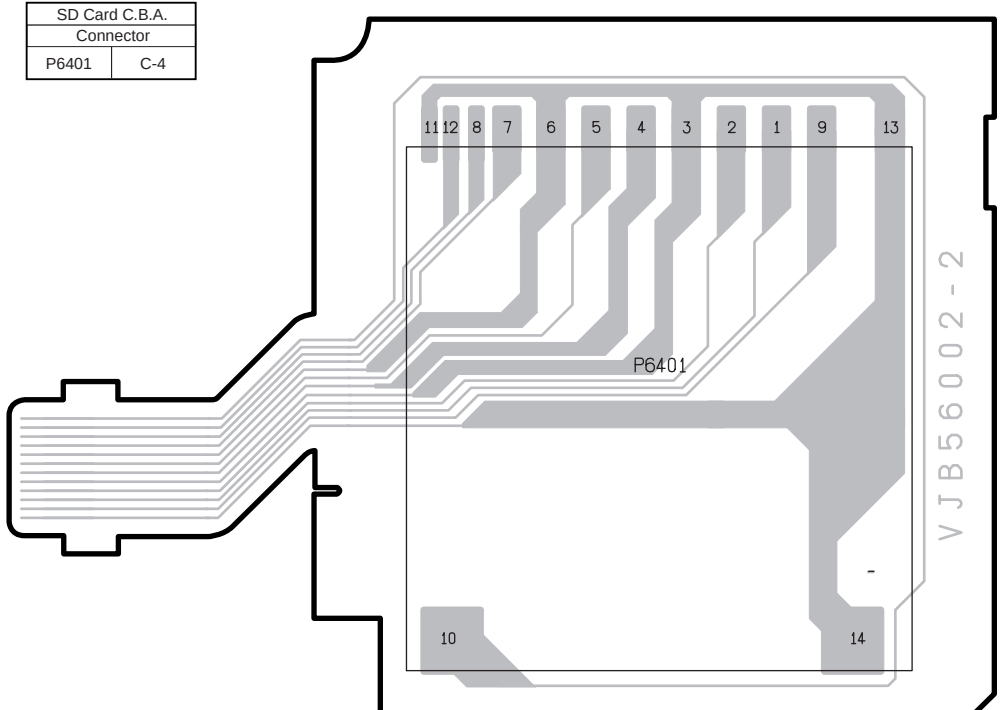
: Playback mode
This allows you to play back recorded pictures.

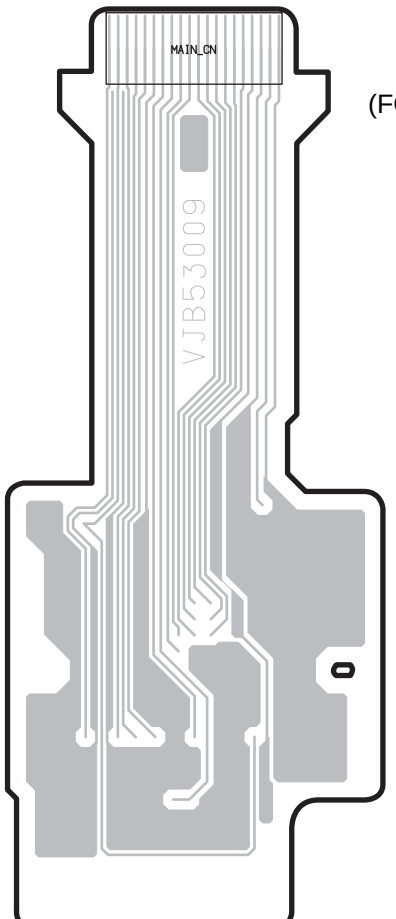
OVERALL BLOCK DIAGRAM



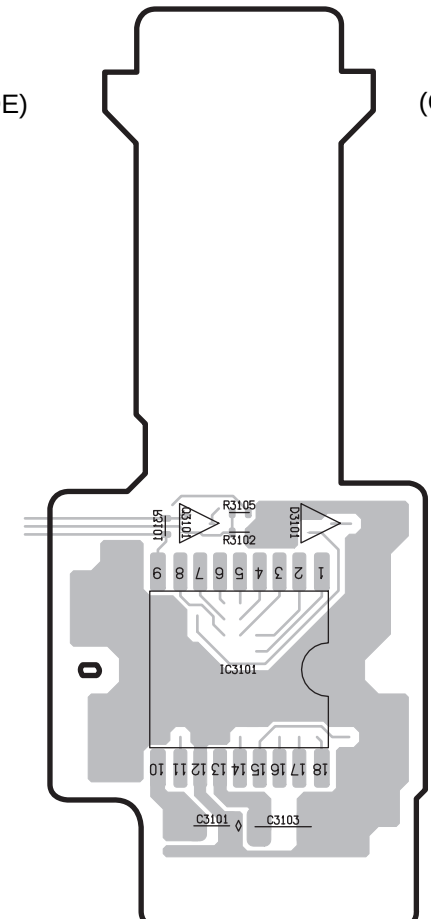
ADDRESS INFORMATION

SD Card C.B.A.	
Connector	
P6401	C-4





(FOIL SIDE)

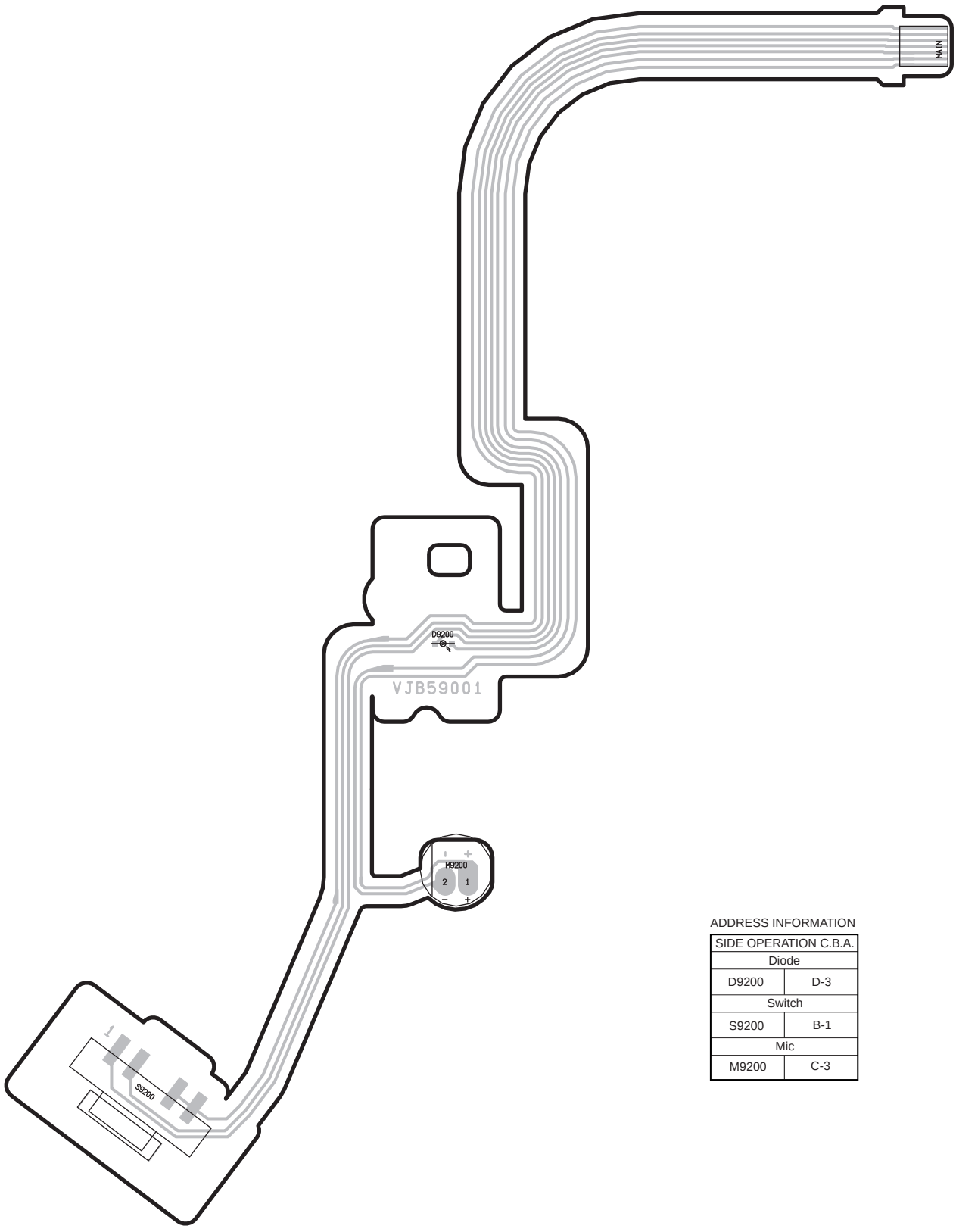


(COMPONENT SIDE)

ADDRESS INFORMATION

CCD C.B.A.		
Integrated Circuit		
IC3101	B-4	C
Transistor		
Q3101	B-4	F
Diode		
D3101	B-4	F
Capacitor		
C3101	A-4	C
C3103	A-4	C
Resistor		
R3101	B-4	C
R3102	B-4	C
R3105	C-4	C

C · · · COMPONENT SIDE
F · · · FOIL SIDE



ADDRESS INFORMATION

SIDE OPERATION C.B.A.	
Diode	
D9200	D-3
Switch	
S9200	B-1
Mic	
M9200	C-3